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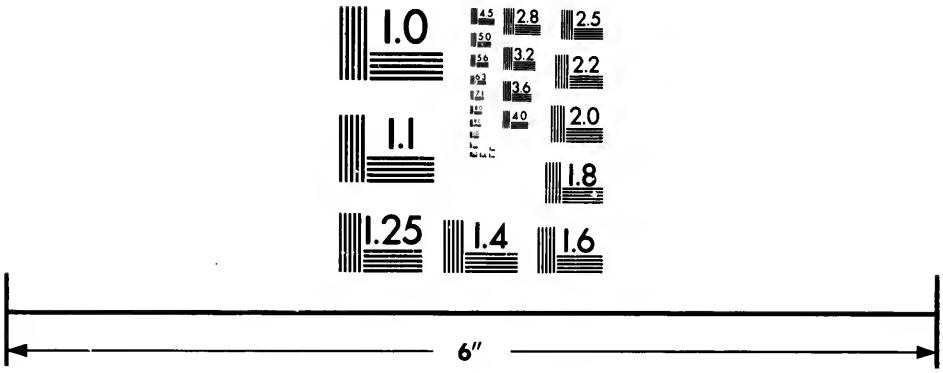

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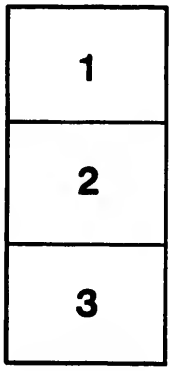

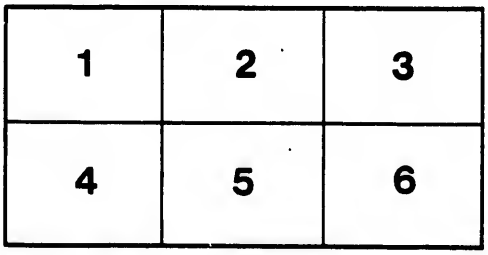

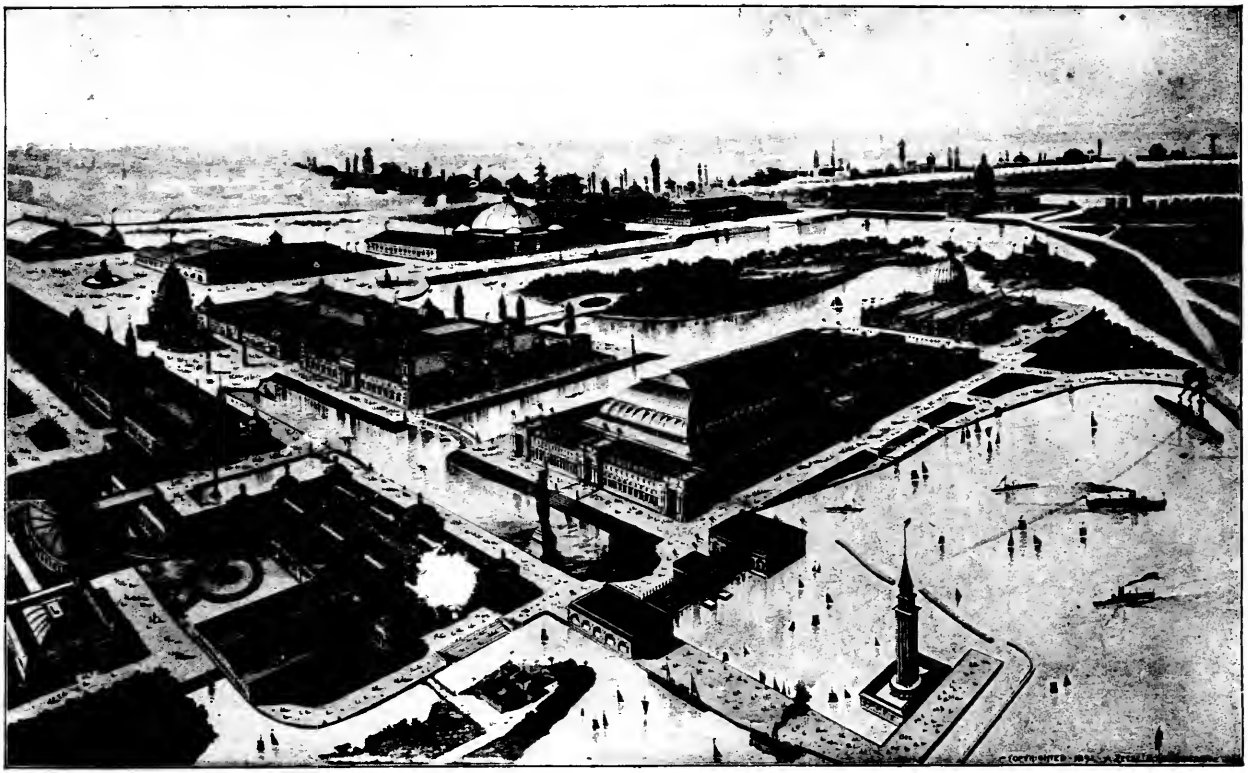

BIRD'S-EYE VIEW OF THE COLUMBIAN EXPOSITION GROUNDS.

BIRD'S-EYE VIEW OF THE COLUMBIAN EXPOSITION GROUNDS.

HISTORY

OF

THE WORLD'S FAIR

BEING

A COMPLETE DESCRIPTION

OF THE

WORLD'S COLUMBIAN EXPOSITION

FROM ITS INCEPTION

BY

MAJOR BEN C. TRUMAN

OF THE DEPARTMENT OF FLORICULTURE

Author of "Semi-Tropical California," "Campaigning in Tennessee," "Occidental Sketches," "The Field of Honor," Etc.

WITH SPECIAL ARTICLES BY

THOS. W. PALMER, Pres't; Hon. GEO. R. DAVIS, Director General; D. H. BURNHAM, Director of Works; Maior MOSES P. HANDY, Bureau of Publicity and Promotion; JOHN THORPE, Floriculture; THOMAS B. BRYAN, Commissioner at Large; and many others prominently connected with the WORLD'S COLUMBIAN EXPOSITION.

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HON. THOMAS W. PALMER,
PRESIDENT WORLD'S COLUMBIAN COMMISSION.

INTRODUCTORY.

PRESIDENT THOS. W. PALMER.

YOU want me to express my opinion in regard to the Fair. I cannot talk to you about it from an artistic standpoint, for I know very little about art. I can only tell its effect upon me and, inferentially, what it will be upon 10,000,000 of people. I think it will astound every one who visits it, both on account of its magnitude and what they will consider its artistic merits. It would be fairy-like if it were not so colossal. It is a vision snatched from dreams whose lines have been brought out and well defined by the iodine of art. As an educational force and inspiration I believe the buildings, their grouping, and laying out of the grounds will in themselves do more good in a general way than the exhibits themselves, by the exaltation that it will inspire in every man, woman, and child who may have any emotions, and who has none, that may come to view it. I think that the prospect from Lake Michigan will impress every one who approaches it from that side by the tout ensemble which will be presented. I never looked at it without thinking of Claude Melnotte's description to Pauline of his palace by the Lake of Como.

I was at Nice some years ago, and one morning in November I looked from my balcony up the distant mountain side and saw the cataract going over the dam, the Alps in the background, with the olive groves and the blue Mediterranean far above ground, and I said to my wife: "Every one who can should come to Nice to put in a stock of material for dreams." I think the Exposition furnishes a magazine for dreams equally as grand and more attractive.

I have no doubt that, notwithstanding the vast amount of literature and illustrations which has been issued describing the Fair, the expectations of our people and those from abroad will be more than realized. I never go down to it but what I am lifted up to a higher plane, and feel more enthusiasm in regard to its real magnitude and merit. If it was within the range of constitutional legislation it would pay the Government of the United States to bring free of expense ten millions of our people who will not have the money to come.

You have seen Kiralfy's "Around the World in Eighty Days" and read Jules Verne's "Around the World," wherein Mr. Fogg gained a day and saved his fortune by going to the west, so will all people and races here gain more than a day

and more than a fortune in getting a more thorough idea of the habitable globe by coming west to Chicago.

I regard the street of all nations on the Midway Plaisance, although thought by some to be beneath the aim of the great Exposition, as one of its most valuable adjuncts. To the specialist, the scientist, and the artist the Exposition furnishes all that may be desired, but to the vast mass of humanity the attractions of the Midway Plaisance will give the first impulse to inquiry, and the statuary outside of buildings constructed on harmonious lines will remain a vital force to the majority of people long after details are forgotten.

The Art Building is a classic and the Fisheries Building a study. In looking at the first a man can feel that he is in Athens during the age of Pericles. The whole thing if viewed by that worthy would make Haroun al Raschid go wild with despair and Scheherezade go mad with envy because Aladdin and his lamp, her greatest achievement, was surpassed from the shores of an inland lake on the margin of the prairie.

S. W. Palmer

PART I.

ORIGIN OF THE EXPOSITION.

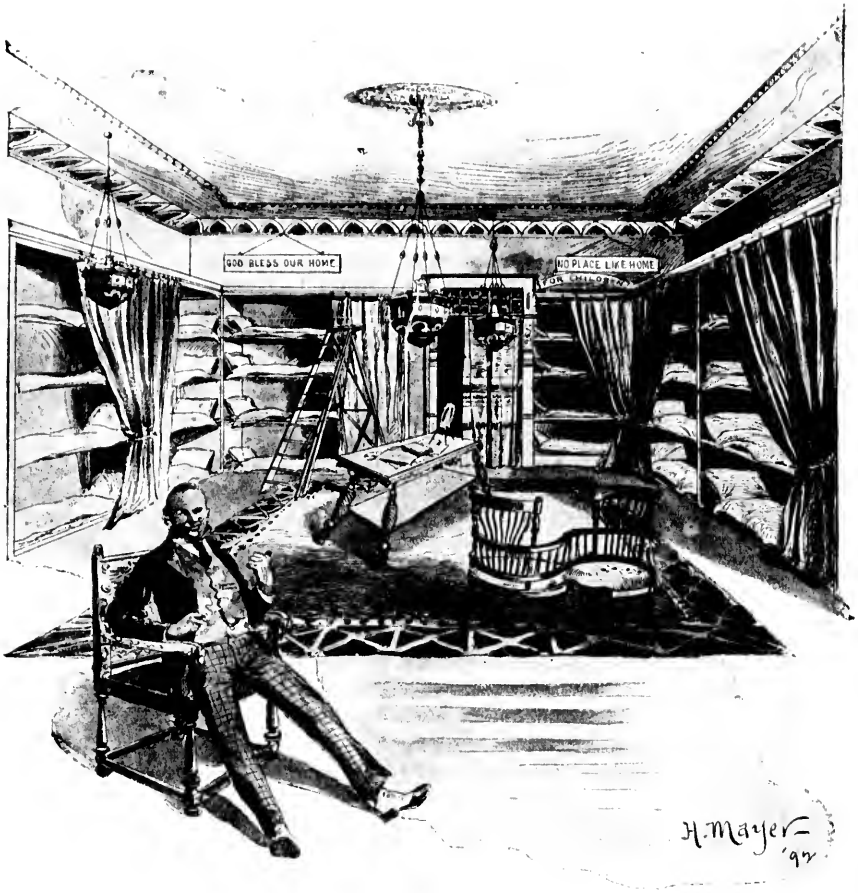
CHAPTER I.

HOW CHICAGO SECURED THE CELEBRATION.

How and When the Columbian Exposition was Conceived—The Idea of a Celebration of the Four Hundredth Anniversary of the Discovery of America by Christopher Columbus Originated with T. W. Zaremba—His First Desire was to Have it in Mexico—How this Indefatigable Gentleman Pursued the Object of His Thought—How Chicago Took Hold of the Enterprise—Other Metropolitan Cities Take a Hand—Splendid Work of Leading Chicago Men in Washington—Persistency of all Parties Interested—The Real Contest Between Chicago and New York—Chicago Successful—Congress Votes in its Favor—Preliminary Action—Subscription of Stock—Board of Directors and Other Officers Elected—Lyman J. Gage the First President of the Chicago Directory—Congressional Provisions for Commissioners—Raising of Money—Appointment of Commissioners—Zaremba's Active Life—Appointment of Hon. Thomas B. Bryan Commissioner-at-Large—Mr. Bryan's Splendid Work in Europe—A Gentleman and a Scholar—Few Men Living With Such Rare Attainments.

IT IS admitted that, during the past twelve or fifteen years, there has not been an insignificant number who have proposed and even agitated a World's Columbian Exposition—that is, a world's celebration of the four hundredth anniversary of the discovery of America by Christopher Columbus. But it seems to be conceded that Dr. T. W. Zaremba, a well-known German-American, is the person to whom the distinguished honor most properly belongs, as abundant proofs are accessible that this gentleman, impressed with the grandeur and benefits of the Centennial, in a few years afterward imparted to Gen. John C. Fremont, Peter Cooper and Charles A. Lamont, whom he met in New York at the Cooper Institute in 1882, his views regarding his new scheme.

It was not until June 11, 1884, however, that Dr. Zaremba made any pronounced movement, upon which day he sent to the diplomatic representatives of foreign powers at Washington an invitation to a conference to consider the celebration of the fourth centenary of America's discovery by Columbus by a World's Fair in Mexico. Sixteen days thereafter he confided his plan to George R. Davis



WELCOME.

An interior view of the parlor of a resident of Chicago as it appears after he has completed arrangements for the reception of friends who have signified their intention of visiting him during the World's Fair.

and P. V. Duester, at that time members of Congress, and a day or two later to William F. Poole of Chicago, whom he met on Broadway in New York. July 11, 1884, he wrote concerning it to Benson Lossing, the historian.

In the summer of 1885 Dr. Zaremba was in Chicago. Still enthusiastic over his plan for the celebration he conferred with Levi Leiter, John P. Reynolds, Edwin Lee Brown and John B. Drake on the subject. In Wisconsin, in the fall of the same year, he chanced to see an article in a Chicago newspaper suggesting that a World's Fair be held to celebrate Columbus' discovery, and that Chicago be the site. Dr. Zaremba immediately returned to Chicago and began to work on his own proposition with not altogether encouraging results. November 24, 1885, he received from Secretary of State Dement license to organize "The Chicago Columbian Centenary World's Fair and Exposition Company." He immediately called a meeting, which was held in club room 4 of the Grand Pacific Hotel, Chicago.

Among the men who responded to his invitation were A. C. and Washington Hesing, A. B. Pullman, John A. Sexton, W. K. Sullivan, and several newspaper reporters. The meeting resulted only in a general talk, but the lukewarm interest evinced by the public in his pet project did not check the ardor of Dr. Zaremba.

In 1886, while the American Historical Society was in session in Washington, Dr. Zaremba brought his Columbus monument and attendant propositions to the notice of that body. A committee to confer with the President of the United States was appointed by the Historical Society with the hope that the chief magistrate would call the attention of Congress to the question and thereby obtain an expression of opinion as to the best manner of celebrating the fourth centenary of America's discovery. Philadelphia, which had kept its eye on the movement, immediately sent a committee to Washington for the purpose of obtaining an appropriation for such a celebration to be held in that city. Thus for the first time the dim possibility of a World's Fair in this country to celebrate Columbus' feat took on an aspect of probability. In February, 1882, the year that the indefatigable Dr. Zaremba was impressing the advisability of his scheme on the minds of Peter Cooper and other New York men, there was printed in a Chicago newspaper a letter from Dr. Harlan, a Chicago dentist, in which he suggested Chicago as the proper place for a World's Fair. In 1885 Dr. Harlan's suggestion was revived, and a joint committee was appointed from the Chicago, Commercial, Union League and Iroquois clubs to take action on the matter and report.

Early in 1886 a Board of Promotion was organized in New England to secure congressional action in the direction of a centenary celebration. Ex-Governor Claflin, of Massachusetts, acted as president of this board. Following closely upon its organization, July 31st, a resolution was introduced by Senator Hoar, of Massachusetts, for the appointment of a joint congressional committee of fourteen to consider the advisability of holding a Fair. Senator Hoar's proposition was to have temporary and permanent buildings for such a Fair erected in Washington, D. C.

As soon as it became evident that the World's Fair would be a coveted honor and that the rivalry among the leading cities of America for the distinction of holding it would be keen, Chicago prepared to get it. The City Council passed a

resolution July 22, 1889, instructing the mayor to appoint a committee of one hundred to induce Congress to locate the Fair in Chicago. A few days later Thomas B. Bryan was requested by several prominent men to write a resolution favoring the location of the Fair at Chicago. This Mr. Bryan did, and at a meeting held in the council chamber the resolution was adopted after a thorough discussion of the subject in all its phases.

August 15, 1889, the Secretary of State at Springfield, Ill., granted a license to De Witt C. Cregier, Ferdinand W. Peck, George Schneider, Anthony F. Seeberger, William C. Seipp, John R. Walsh and E. Nelson Blake to open subscription books for the proposed corporation entitled "The World's Exposition of 1892, the object of which is the holding of an international exhibition or World's Fair in the City of Chicago and State of Illinois to commemorate on its four hundredth anniversary the discovery of America."

The first World's Fair bill was introduced in the United States Senate by Senator Cullom, of Illinois, December 19, 1889. January 11, 1890, De Witt C. Cregier, then mayor of Chicago, Thomas B. Bryan and Edward T. Jeffery appeared before a special committee of the United States Senate and addressed the same in support of Chicago's application. It was at that meeting that Mr. Bryan experienced the satisfaction of defeating Chauncey M. Depew, who led the New York delegation. For this victory Mr. Bryan was complimented by the entire press of the country outside of New York.

How bitterly the battle was waged between east and west all the world knows. Nothing that could influence the decision of Congress was left undone. Nothing that the press could contribute toward the settlement of the problem was left unwritten. It was, therefore, a signal indorsement of Chicago's persistency and pluck, when in the face of the opposition of the representatives of the Eastern interests Congress voted, February 24, 1890, to have the Exposition in Chicago.

Then began on the part of the citizens of Chicago that united effort for the carrying out of the project which has resulted in success so complete and so magnificent as to break down all prejudices, and to compel the admiration of the civilized world. Capital for the organization of the World's Fair was subscribed March 23, 1890. A meeting of subscribers to the capital stock was held in Battery D, April 4, 1890, and a full Board of Directors was elected. In turn, April 30th, elected Lyman J. Gage, president; Thomas B. Bryan and Potter Palmer, vice-presidents; Anthony F. Seeberger, treasurer; Benjamin Butterworth, secretary, and William K. Ackerman, auditor. The first meeting of the new directory was held April 12th. President Harrison signed the measure, locating the Exposition in Chicago. This provided for the creation of the World's Columbian Exposition Board, to consist of two commissioners appointed by the President for each state and territory, of eight commissioners-at-large, and two from the District of Columbia, each with alternates.

The question of funds was met promptly by the Illinois Legislature, which, in a special session held June 12, 1890, authorized the city of Chicago to increase its bonded indebtedness $5,000,000 in aid of the Exposition. The name was changed

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DIRECTORS WORLD'S COLUMBIAN EXPOSITION.

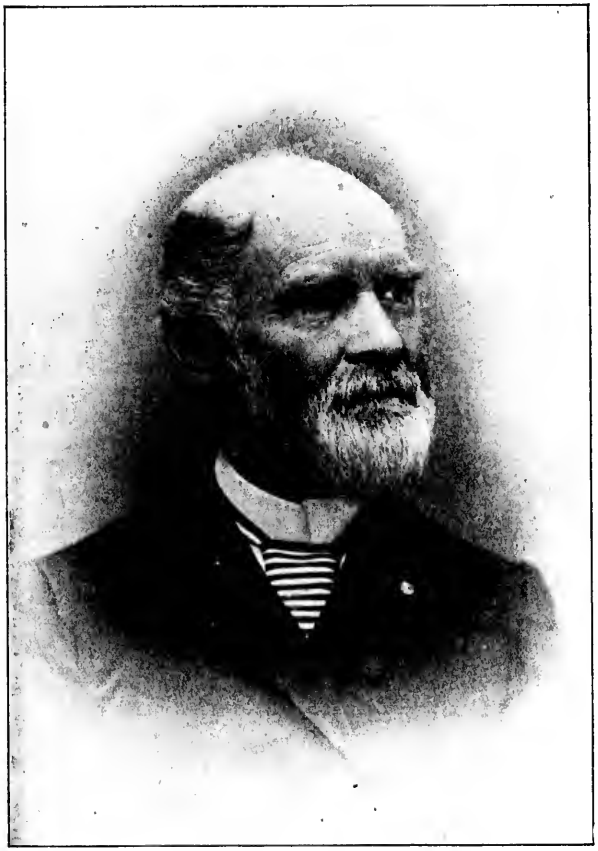
1. Lyman J. Gage.
2. Harlow N. Higinbotham.
3. Frederick S. Winston.
4. Ferdinand W. Peck.
5. George R. Davis.
6. Charles H. Wacker.
7. Thomas B. Bryan.
8. Edward B. Butler.
9. John J. P. Odell.
10. William T. Baker.
11. George Schneider.
12. Charles Henrotin.
13. Robert A. Waller.
14. Alexander H. Revell.
15. Edwin Walker.

to the World's Columbian Exposition, with the capital increased to $10,000,000. While this action of the State Legislature by no means solved the financial problems with which the Fair had to contend, it went a long way toward inspiring confidence in the movement, and placed the Exposition on a sound basis.

Dr. Zaremba was born July 29, 1842, at Koenigsburg, Prussia, where his father was a petty officer in the Third Regiment of Cuirassiers, and afterward an internal revenue officer at the city of Memel, where Zaremba attended the primary school until 1854, when in October of that year he entered the military school at Potsdam. In 1857, being transferred to the Military Academy, he studied the higher branches in connection with military education and tactics, becoming at the same time personally acquainted with the late Emperor Frederick of Germany. In 1859, he entered the service of the Royal Guard Artillery at Berlin, and within ten months was transferred to the staff of Prince Wilhelm of Baden, who took special interest in him, and secured a special permit for Zaremba to attend the lectures of the Berlin University. In 1862, he went to Moscow, Russia, and while finishing his studies in medicine and philosophy he wrote a manual of military gymnastics for the Russian army. In September, 1865, Zaremba coming with his mother to Chicago went to St. Joseph, Mich. He soon returned to Chicago, however, and practiced his profession as a physician until the great fire. In 1871, he became one of the founders of the Chicago Athenæum; Dr. Zaremba was one of the prime movers in the Interstate and Industrial Exposition in 1872 and 1873. In November, 1878, when the International Commercial Convention assembled at Farwell Hall, Dr. Zaremba was appointed a city delegate by Mayor Heath. In January, 1879, he started with the first Industrial Excursion from Chicago to Mexico, which formed the entering wedge for American trade in that country.

In the fall of 1891, the Exposition company sent a commission (presided over by the commissioner-at-large, Thomas B. Bryan), to southern Europe. Up to that time neither the people nor the rulers in that region of the world had manifested the slightest interest in the Exposition, but the commissioners appealed to both the potentates and the people, informing them fully of the stupendous undertaking in which this nation had embarked, and after some five months so spent in industriously disseminating all the information available, the most gratifying change of sentiment occurred and the liveliest interest was inspired. Not only did kings and queens respond most encouragingly (speaking alternately in French and German, as they had been addressed), but the Pope also acknowledging that he was surprised to learn of the grand scale of the international Exposition, promised to contribute generously to its success, and did so first by his cordial letter to Commissioner-at-large Bryan (translated and circulated in many lands), and next by contributing treasures never before permitted to leave the Vatican. The commissioner-at-large has, since that European mission, been incessantly occupied in conducting correspondence, and in multifold office work, delivering lectures and otherwise advancing the interests of the Exposition.

Thomas B. Bryan was born December 22, 1828, in Alexandria, Va. His father, Hon. Daniel Bryan, was a prominent man in Virginia. He represented his



HON. THOMAS B. BRYAN,

COMMISSIONER-AT-LARGE, WORLD'S COLUMBIAN COMMISSION.

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district in the State Senate, besides holding other important positions. James and Philip Barbour, his mother's brothers, served in the highest offices of the State, in the United States Senate, United States Supreme Court, and in the Cabinet as Secretary of War. Mr. Bryan was graduated at Harvard University in 1848. While pursuing his college studies he wrote a book in the German language, the aim of which was to make it easy for Germans to acquire the English language. Many editions have been sold, it being pronounced an excellent work. He is also familiar with the French, conversing quite fluently in that tongue. Mr. Bryan married early in life Miss Jennie B. Page, daughter of an Episcopal clergyman. She is spoken of as a most gentle, accomplished and excellent lady. Their wedded life, which has already passed the fortieth anniversary, is very harmonious. After several years' successful practice of his profession in Cincinnati, in partnership with Judge Hart, Mr. Bryan came to Chicago in 1852, where he has been engaged in business up to the present time, with the exception of three years in Colorado, and during his governorship of the district of Columbia. Although Mr. Bryan is a very energetic man he is not ambitious. He has occupied many prominent positions with great credit to himself, and if he had been more eager for fame or political power, he might have been a leading orator, statesman or diplomat. After the death of Bayard Taylor, Mr. Bryan was strongly recommended for his successor as ambassador to Germany, the leading newspapers of the United States uniting in the recommendation. But, when Andrew D. White, of Cornell University, was mentioned for the position, Mr. Bryan encouraged the appointment, gracefully retiring from the field. Mr. Bryan, as vice-president of the World's Columbian Exposition, addressed conventions in many of the States, besides visiting Europe, where he succeeded in overcoming strong prejudices against the Exposition, and in arousing latent forces in its behalf. After his successful efforts at Washington he gained another great victory in the effort to get the consent of the Legislature of the State of Illinois to authorize the city of Chicago to issue $5,000,000 in bonds for the benefit of the Fair. He was afterward appointed commissioner-at-large. Mr. Bryan is a sound lawyer, being a close student in his profession, and, as a convincing speaker, unusually gifted.

CHILDREN'S PARADE PASSING UNION SQUARE, NEW YORK, OCTOBER 22, 1892.

COMMISSIONER-AT-LARGE THOS. B. BRYAN'S OPINION OF THE LASTING BENEFITS OF THE FAIR.

THE mammoth temples now dedicated to industry and the arts will survive that dedication but a few months and then be demolished. But there will be some salvage. Much of their material will enter into other structures of a more enduring character, if not of equal renown. And so from the Exposition itself there will be great salvage—much, indeed, that will escape identification with its origin, but much directly traceable to the great Fair. This fruitage is too prolific a theme for skilful handing in so narrow a compass as this, but a glance may be had at a choice specimen of the fruit, here and there, just as one might stop to pluck an orange or a star-apple in some inter-tropical region.

One resulting benefit, and perhaps that of widest reach and greatest value, will be the largely increased acquaintance we may thenceforth enjoy with other peoples, and their better knowledge of Americans. It is not less true than amazing that millions upon millions of otherwise enlightened people scattered over the Eastern Continent know but little more of America than did its discoverer when the floating thorn branch with its flowers and scarlet berries gave promise of the coveted land on the morrow. The Indians, of whom he wrote so often and so graphically, are supposed by many people in the Old World to still constitute a very considerable if not dangerous part of our population. Those millions abroad seem never to have heard of the touchingly pathetic lament of Red Jacket (and which at the close of another year we hope may not be echoed by our Exposition): "We stood, a small island in the bosom of great waters. They rose; they pressed upon us, and the waves once settled over us; we are gone forever! Who now lives to mourn us? None! What marks our resting-place? Nothing!"

The Ethnological Department of the Fair will greatly extend our general knowledge of those aborigines, as well as of the prehistoric races that inhabited this land. Although at first blush we are apt to regard the discovery of America as of a very remote period in the past, yet, in fact, why should four centuries be considered more than a mere break of old Father Time, but four links in his endless chain, a single arch in the bridge of history and tradition? Science and research are now spanning that arch to bring all mankind into the immediate presence of the great event that we are now celebrating.

Ten thousand times ten thousand benefits of a practical nature must assuredly result from the exhibits in all departments of human industry and skill. The ingenuity of man, already exercised to its utmost capacity for impressive dis-

play at the Fair, will be stimulated in numberless directions by observation at the Exposition and by the suggestions to which it may give birth. This expansion and improvement or beneficial development of the inventive faculties and of skill will extend in some measure to the fine arts, here comparatively in their infancy. From the fact of that infancy America may at least derive one consolation—that it is not included in the sad lament that "the names of great painters are like passing bells; in the name of Valesquez you hear sounded the fall of Spain; in the name of Titian that of Venice; in the name of Leonardo that of Milan; in the name of Raphael that of Rome."

Of the general educational advantages to flow from our grand Exposition it is impracticable here to treat further than in the most casual mention. Then the great Krupp gun, to transport which special derricks, a special ship, and special cars were provided, can give an instructive idea of the formidable energy of modern warfare as compared with the primitive cannon introduced but shortly before the birth of Columbus. But it is to be hoped that peace congresses may advance the cause they champion, teaching the world to speed the time when "nation shall not lift up sword against nation, neither shall they learn war any more." In America, above all lands, should be heard and heeded the lessons from the mouth of the schoolmaster rather than those from the mouth of cannon.

Thomas P. Bryan

CHAPTER II.

THE PILLARS OF THE EXPOSITION.

The Men to Whose Charge the Construction of the Great Work Has Been Intrusted From Its Conception—Officials of the Directory—Standing Committees—Council of Administration and Board of Control—Forty-Five Big Earnest Men of Chicago.

IN THE 21st of December 1890, the President of the United States issued a proclamation extending an invitation to the nations of the earth to participate in the Columbian Exposition to be held in Chicago. On the 14th of April, 1891, William T. Baker was elected President of the Local Board to succeed Lyman J. Gage, who had declined re-election and refused his salary of $6,000, which was to his credit on the books. Mr. Baker was re-elected one year afterward, but soon after resigned on account of ill health, and Mr. Harlow N. Higinbothom was unanimously elected to serve the unexpired term of Mr. Baker. At the annual meeting of directors in April, 1893, Mr. Higinbotham was again unanimously chosen President, and the following is the roster of the Board at the present time:

President—Harlow N. Higinbotham.

Vice-President—1st, Ferdinand W. Peck; 2d, Robert A. Waller.

Secretary—Howard O. Edmonds; Assistant Secretary, Samuel A. Crawford.

Treasurer—Anthony F. Seeberger.

Auditor—William K. Ackerman; Assistant Auditor, Charles V. Barrington.

Solicitor General—Edwin Walker· Assistant Attorneys, George Packar, Charles H. Baldwin, Joseph Cummins.

The following is the Board of Directors:—William T. Baker, The Temple. C. K. G. Billings, 2 Madison St. Thomas B. Bryan, 401 Rand-McNally Building. Edward B. Butler, Franklin and Congress Streets. Isaac N. Camp, State and Jackson Streets. William J. Chalmers, Fulton and Union Streets. Charles H. Chappell, Chicago & Alton R. R. Robert C. Clowry, 150 Washington Street. Mark L. Crawford, House of Correction. George R. Davis, Jackson Park. Arthur Dixon, 299 Fifth Avenue. James W. Ellsworth, Phenix Building. Lyman J. Gage, First National Bank. Charles Henrotin, 169 Dearborn Street. H. N. Higinbotham, 441 Rand-McNally Building. Charles L. Hutchinson, Corn Exchange Bank. Eldridge G. Keith, Metropolitan National Bank. William D. Kerfoot, 85 Washington Street. William P. Ketcham, Hoyne and Blue Island Avenues. Milton W. Kirk, Care James S. Kirk & Co. Hon. Carter H. Harrison, Mayor, City Hall.

HARLOW N. HIGINBOTHAM,

PRESIDENT WORLD'S COLUMBIAN EXPOSITION.

Edward F. Lawrence, First National Bank. Victor F. Lawson, Daily News. Thies J. Lefens, Room 1, 89 LaSalle Street. Andrew McNally, Rand-McNally Building. Adolph Nathan, Franklin and Jackson Streets. John J. P. Odell, Union National Bank. Ferdinand W. Peck, 110 Auditorium Building. Erskine M. Phelps, Fifth Avenue and Adams Street. Washington Porter, Room 7, 108 Dearborn Street. Alexander H. Revell, Wabash Avenue and Adams Street. Edward P. Ripley, 207 Rand-McNally Building. A. M. Rothschild, 203 Monroe Street. George Schneider, 115 Dearborn Street. Charles H. Schwab, Foreman Bros., 128 Washington Street. James W. Scott, Herald. Henry B. Stone, 203 Washington Street. Charles H. Wacker, 171 North Desplaines Street. Edwin Walker, 616 Rookery Building. Robert A. Waller, 164 La Salle Street. John C. Welling, 78 Michigan Avenue. G. H. Wheeler, 2020 State Street. Frederick S. Winston, Monadnock Building. Charles T. Yerkes, 444 North Clark Street. Otto Young, the Fair.

The president of the World's Columbian Exposition is Mr. Harlow N. Higinbotham, one of the members of the firm of Marshall Field & Co. He is the executive officer of the corporation and the active agent for the accomplishment of the purposes for which it was formed. All contracts binding upon the corporation and upon which money is expended from the treasury are executed by him. He is *ex-officio* a member of all committees of the Board and is chairman of its Executive Committee, which exercises all the functions of the Board when the latter is not in session. Mr. Higinbotham is also chairman of the Council of Administration, a body composed of two members of the Board of Directors and two members of the World's Columbian Commission organized for the purpose of concentrating the jurisdiction of both bodies in order to more effectively administer the affairs of the enterprise.

Harlow Niles Higinbotham was born in Joliet, Ill., Oct 10, 1838. He attended school in a little log cabin until he began business for himself at the age of twenty, in the crockery line. He came to Chicago in 1860, and entered the employ of Cooley, Farwell & Co., where he remained for a short time. He enlisted in the Morgan Guards at the beginning of the late war, and went through the campaigns in Virginia and Tennessee. Returning after the close of the war he again entered the firm of Cooley & Leiter, which was afterward Field, Leiter & Co., and now Marshall Field & Co., where he has been ever since, having been admitted to the firm in 1880. Mr. Higinbotham, from the inception of the enterprise has been a working member of the two most important committees of the corporation, those on Finance, and Ways and Means. He contributed without stint his time and services when the fortunes of the Exposition were so critical that the committees were required to be in almost continuous session. Mr. Higinbotham's unanimous election as president was followed by his appointment to membership and the chairmanship of the Council of Administration, a body created to be representative of the supreme power vested in both the national commission and the directory of the corporation. The duties of these combined stations demand the constant attention of their incumbent, and that Mr. Higinbotham should give this is a contribution whose value can not be overestimated. His characteristics are clearness of perception, directness of method, steadiness of application, and promptitude in

DIRECTORS WORLD'S COLUMBIAN EXPOSITION.

1. Isaac N. Camp.
2. Wm. J. Chalmers.
3. R. C. Clowry.
4. C. H. Chappell.
5. Arthur Dixon.
6. Elbridge G. Keith.
7. Wm. D. Kerfoot.
8. Wm. P. Ketcham.
9. Milton W. Kirk.
10. Edward F. Lawrence.
11. Adolph Nathan.
12. Washington Porter.
13. Edward P. Ripley.
14. A. M. Rothschilds.
15. Charles H. Schwab.

cision. These form an equipment which constitute a model man of affairs, and such is Mr. Higinbotham. His success in life has been the outcome of work and thought, not speculative fortune. The destinies of the Exposition could not be entrusted to a more capable and trustworthy guardian.

The following is the standing committees of the Directory:—[The President and Director General are ex-officio members of all standing committees].

Executive Committee—Harlow N. Higinbotham, Ferdinand W. Peck, Robert A. Waller, George R. Davis, Henry B. Stone, James W. Ellsworth, Edwin Walker, Robert C. Clowry, Wm. D. Kerfoot, John J. P. Odell, Chas. H. Schwab, Edward B. Butler, Alexander H. Revell, Thies J. Lefens, Edward P. Ripley, Lyman J. Gage, Charles L. Hutchinson, Wm. T. Baker.

(Regular meeting of the Executive Committee Wednesday of each week at 3 o'clock p. m. Office, 507 Rand-McNally Building, Adams street.)

Finance—Ferdinand W. Peck, Chairman; Elbridge G. Keith, John J. P. Odell, Lyman J. Gage, James W. Ellsworth.

Grounds and Buildings—Henry B. Stone, Chairman; Lyman J. Gage, William P. Ketcham, Charles H. Schwab, Robert C. Clowry, Edward F. Lawrence, Erskine M. Phelps.

Legislation—Edwin Walker, Chairman; Fred. S. Winston, Fred. W. Peck, Arthur Dixon.

Agriculture—William D. Kerfoot, Chairman; Thies J. Lefens, Isaac N. Camp, George Schneider, Washington Porter.

Mines, Mining and Fish—Charles H. Schwab, Chairman; William J. Chalmers, Mark L. Crawford, John C. Welling, George H. Wheeler.

Press and Printing—Alexander H. Revell, Chairman; James W. Scott, Victor F. Lawson, Milton W. Kirk, George Schneider. R. J. Murphy, Secretary.

Transportation—Edward P. Ripley, Chairman; Henry B. Stone, Charles H. Chappell, John C. Welling, Arthur Dixon.

Fine Arts—Charles L. Hutchinson, Chairman; James W. Ellsworth, Elbridge G. Keith, Charles T. Yerkes, Thomas B. Bryan.

Liberal Arts—James W. Ellsworth, Chairman; Robert A. Waller, Isaac N. Camp, Alexander H. Revell, William T. Baker.

Electricity, Electrical and Pneumatical Appliances—Robert C. Clowry, Chairman; Charles H. Wacker, C. K. G. Billings, Mark L. Crawford, Charles L. Hutchinson.

Manufactures and Machinery—John J. P. Odell, Chairman; Adolph Nathan, A. M. Rothschild, Andrew McNally, Erskine M. Phelps.

Ways and Means—Edward B. Butler, Chairman; Adolph Nathan, George Schneider, Edward F. Lawrence, Edward P. Ripley, Charles H. Wacker, Milton W. Kirk, Wm. J. Chalmers, Washington Porter, Robert A. Waller, Wm. D. Kerfoot, Otto Young, Andrew McNally. Samuel A. Crawford, Secretary.

Foreign Exhibits—Thies J. Lefens, Chairman; James W. Ellsworth, Charles H. Wacker, Wm. T. Baker, Charles Henrotin, Thomas B. Bryan.

Special Committee on Ceremonies—Edward F. Lawrence, Chairman; James

OFFICERS WORLD'S COLUMBIAN EXPOSITION.

1. Anthony F. Seeberger, *Treasurer.*
2. Ferdinand W. Peck, *1st Vice-President.*
3. Robert A. Waller, *2d Vice-President.*
4. Harlow N. Higinbotham, *President.*
5. Howard O. Edmonds, *Secretary.*
6. Samuel A. Crawford, *Assistant Secretary.*
7. William K. Ackerman, *Auditor.*
8. Charles V. Barrington, *Assistant Auditor.*

W. Ellsworth, Chas. T. Yerkes, William D. Kerfoot, James W. Scott, Charles Henrotin, Alexander H. Revell, William P Ketcham, Thomas B. Bryan. Col. E. C. Culp, Secretary.

The Council of Administration has the chief direction and management of the Exposition, subject only to action of Congress. It was created by agreement between the National Commission and the Exposition Directory, or local organization, its membership embracing two representatives from each body as follows: H. N. Higinbotham, President of the Exposition and Chairman. George V. Massey, Commissioner from Delaware. Charles H. Schwab, Director of the Exposition. J. W. St. Clair, Commissioner from West Virginia. Secretary, A. W. Sawyer.

The Board of Reference and Control is composed of eight National Commissioners with alternates, and eight Exposition directors. To it are referred for settlement questions upon which the Commission and Directory fail to agree severally. On the part of the Exposition Co. they are as follows: H. N. Higinbotham, President; Ferdinand W. Peck, R. A. Waller, L. J. Gage, H. B. Stone, Edwin Walker, E. P. Ripley, J. J. P. Odell. Secretary, H. O. Edwards.

OFFICERS OF THE WORLD'S COLUMBIAN COMMISSION.

2. THOMAS M. WALLER, *1st Vice-Pres.*
5. GORTON W. ALLEN, *4th Vice-Pres.*
8. H. P. PLATT, *Vice-Chairman Executive Com.*
1. THOMAS W. PALMER, *President.*
4. DAVIDSON R. PENN, *3d Vice-Pres.*
7. JOHN T. DICKINSON, *Secretary.*
3. M. H. DEYOUNG, *2d Vice-Pres.*
6. ALEX. B. ANDREWS, *5th Vice-Pres.*
9. GEORGE R. DAVIS, *Director-General.*

PART II.

THE NATIONAL COMMISSION.

CHAPTER I.

FIRST MEETING OF THE NATIONAL COMMISSION.

Appointment of Commissioners by President Harrison—First Meeting Convened by Secretary Blaine—Hon. A. T. Ewing of Illinois Calls the Commission to Order in the Parlor of the Grand Pacific Hotel in Chicago—Rev. John Barrows Makes a Prayer—John T. Harris of Virginia, Temporary Chairman—Thomas W. Palmer of Michigan Unanimously Selected as Permanent President—John T. Dickinson of Texas Made Permanent Secretary in the Same Way—Sketches of the Lives of These Two Gentlemen—Selection of Vice-Presidents—Adjournment.

IN a reasonably short time after the World's Fair bill received, the Executive signature, President Harrison appointed members of the National Commission, two each from the several States and Territories—one Republican and one Democrat—on nominations made by the Governors of said States and Territories, and also eight commissioners-at-large, which had also been provided for by the act of Congress creating the Commission; and on the 5th of June, 1890, Secretary of State Blaine, issued an official letter convening the first session of the National Commission at the Grand Pacific Hotel in Chicago on the 25th of the same month; and on the 26th the Commission met and Hon. A. T. Ewing, of Illinois, took the chair reserved for the Presiding Officer, called the assemblage to order and said:

GENTLEMEN OF THE COMMISSION:—I am directed by the Department of State to call this meeting to order, which I now do in the name of the United States. I bid you welcome to Chicago, and am sure that wisdom and unity of purpose will mark your deliberations.

This was followed by prayer by the Rev. John Barrows, and then Hon. John T. Harris, of Virginia, was elected Temporary Chairman.

On motion of Commissioner McKenzie, of Kentucky, amended by Mr. Waller, of Connecticut, a committee of twelve was ordered to be appointed by the chairman, to report the offices necessary to be filled to constitute a permanent organization. During a lull in the proceedings, but while the subject of an election of officers was under informal discussion, Mr. Thatcher, of New York, read a telegram from the Hon. C. M. Depew, in which that gentleman requested that "his name should not

COMMISSIONERS WORLD'S COLUMBIAN COMMISSION.

1. PATRICK H. LANNAN, *Utah.*
2. J. T. W. TILLER, *Arkansas.*
3. J. H. CLENDENING, *Arkansas.*
4. A. T. BRITTON, *District Columbia.*
5. ALBERT A. WILSON, *District Columbia.*
6. CHARLES H. DEERE, *Illinois.*
7. ADLAI T. EWING, *Chicago.*
8. THOS. E. GARVIN, *Indiana.*
9. ELIJAH B. MARTINDALE, *Indiana.*
10. WALTER AIKEN, *New Hampshire.*
11. CHAS. D. MCDUFFEE, *New Hampshire.*
12. LYMAN B. GOFF, *Rhode Island.*
13. GARDINER C. SIMS, *Rhode Island.*
14. PHILLIP ALLEN, JR., *Wisconsin.*
15. JOHN N. COBURN, *Wisconsin.*

caused in connection with the presidency of the Commission, as he was about to undertake an extended trip to Europe, etc." Pending a report from the Committee on Permanent Organization, the meeting adjourned until the following day.

When the commissioners re-assembled, pursuant to adjournment, on June 27th, Mr. McKenzie from the Committee on Permanent Organization, submitted a partial report, which was unanimously adopted, and which provided for the election of a president, five vice-presidents, and a secretary; the first vice-president to be of opposite politics to the president, and the other four to be equally divided in politics. Nominations being called for, the office of president was filled by the unanimous election of Hon. Thos. W. Palmer, of Michigan, who was escorted to the chair and accepted his high duties in the following language:

GENTLEMEN OF THE COMMISSION:—I am profoundly grateful for the compliment that you have paid me; and yet, in accepting the compliment, I am infused with a feeling of trepidation as to what it involves. Men, as a rule, shrink from the trials of the unknown, and that general clause in the definition of the duties of the president, seems to me to involve much more than we would suppose at a first glance. It places a great deal upon the president; and it may take a great deal away from him. In either case, he proposes not to complain. I have heard it said that when the throes of birth were not severe in the delivery of a child, the child was liable to be of little worth thereafter. On that account I regard my election by acclamation as a poor augury for my future. If there had been a little more of a struggle, it might have given me a greater experience of the peril, of the hardship of my next few years. In regard to that distinguished man whose name has been proposed in connection with the president—that admirable Crichton of America, that man who is always first in finance, at the social board, on the rostrum, or in business life—I would say that if he could have been induced to accept the position, I believe it would have given us greater prestige abroad and at home. I telegraphed to him that it had been suggested to me that if he were willing to become a candidate, I would decline to have my name presented; but the circumstances were such that Mr. Depew felt that he could not give it the time, and, therefore, I became a willing sacrifice. The Chair now awaits the leasure of the Commission.

Mr. Massey, of Delaware, offered the following resolution, which was unanimously adopted:

Resolved, That the Committee on Permanent Organization be instructed and directed to consider the matter of the several vice-presidents and other officers designated by their report just presented, and make recommendation to the Commission of suitable nominees for the same; and before determining upon their recommendation, that they shall sit for two hours to hear the individual views and preferences of such members of the Commission as may desire to address them in that behalf.

On motion of Mr. Kerens, of Missouri, the Commission proceeded to the election of a permanent Secretary.

Mr. Skiff, of Colorado, presented the name of Dr. John T. Dickinson, of Texas, which was seconded by Mr. Rucker, of North Dakota.

Mr. Dickinson was unanimously elected secretary; and on taking his place at the secretary's desk, made the following remarks:

GENTLEMEN OF THE WORLD'S COLUMBIAN COMMISSION:—Permit me to express to you my sincere gratitude for the high compliment you have paid me, and through me the State of

Texas, which I have the honor, in part, to represent in this Commission, by electing me as your secretary. I fully realize the magnitude of the enterprise which we are about to inaugurate, and if I did not conscientiously believe that I could successfully perform the duties of secretary of the World's Columbian Commission, with credit to myself and to my State, and ultimately, I trust, to the satisfaction of this Commission, I would not have been a candidate for the honor. Having had considerable practical experience as secretary and general manager of fairs and expositions, I shall enter upon the discharge of the duties of this important office, feeling always the responsibility of the position, and with the assurance of your confidence and support, I will endeavor to bring all the fidelity, intelligence, zeal and industry I may possess toward the satisfactory performance of the varied and exacting duties that belong, both directly and indirectly, to the office of the secretary of the World's Columbian Commission. Again thanking you for the honor conferred upon me, I will now proceed to enter upon the discharge of the duties of the office.

On motion of Mr. Widener the following resolution was adopted:

Resolved, That a committee of seven be appointed to communicate with the local directors of the World's Columbian Exposition of Chicago, and notify them that this Commission is now permanently organized and prepared to receive any communications they may have to submit.

The next day, June 28th, the organization was further perfected by election of the following vice-presidents, from first to fifth, in the order in which they are named: Thomas M. Waller, Connecticut; M. H. De Young, California; Davidson B. Penn, Louisiana; G. W. Allen, New York; Alex. B. Andrews, North Carolina. The next step taken was to appoint a committee, consisting of Commissioners Smalley, Kerens, Bromberg, Thatcher, Widener and Sewell, instructed by resolution to investigate and report upon the following lines of inquiry: Whether the World's Columbian Exposition had secured the legally prescribed amount of subscriptions to the capital stock; whether, in fact the tenth part, or 10 *per centum* of such subscription had been paid in by the shareholders; and whether the corporation had instituted proper measures to obtain subscriptions to an additional amount of five millions as contemplated by the Act of Congress.

After this the Commission met daily and was engaged in mapping out the details of a complete legislative and executive organization. During these sittings the following resolution was adopted:

Resolved, That this Commission is satisfied that the World's Columbian Exposition of Chicago has an actual, bona fide and valid subscription to its capital stock which will secure the payment of at least five million dollars, of which not less than five hundred thousand dollars has been paid in, and that the further sum of five million dollars, making in all ten million dollars will be provided by said corporation in ample time for its needful use during the prosecution of the work for the complete preparation of said Exposition.

On the 3rd of July an adjournment was had to October 8, 1890, unless sooner called together by the president.

Thomas Wetherill Palmer, President of the Commission, comes of a sturdy stock, his ancestots on both sides having been among the early settlers of the continent which Columbus opened up to civilization. His mother's people were Rhode Islanders in direct descent from Roger Williams; and her father, a native of Massachusetts, and one of those who fought with Warren at Bunker Hill, was after the

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WILLIAM T. BAKER.

SECOND PRESIDENT OF THE WORLD'S COLUMBIAN EXPOSITION.

Revolution appointed by President Jefferson to a Federal judgeship in the Territory of Michigan, and held court in the wilderness while yet Tecumseh was a living terror to the land. Thomas, the father of President Palmer, had birth in the State of Connecticut, but was a pioneer in the settlement of the Northwest, and the year 1809 found him already on the frontier line, conducting a lucrative trade with the Indians at the post of Detroit, where, twenty-one years later, June 25, 1830, the subject of our sketch was born. The younger Palmer literally grew with the country, and by the time that his manhood approached, Territories had become States, forests had given way to cities, society had taken root in the land of the savage, and the spire of the church and belfry of the school were rising from the bosom of the prairies. He enjoyed the benefit of an execellent scholastic education, was assiduous in his studies, passed through the course at St. Clair College, and took his degree of graduation at the University of Michigan. Some months were then passed in foreign travel, and while abroad he made a pedestrian tour of Spain and acquired such familiarity with the language and the people of the country as was afterward to serve a valuable purpose to his own government. Returning to this country, Mr. Palmer entered upon mercantile pursuits, was for some time engaged in business in Wisconsin, and subsequently conducted large enterprises in Detroit, where he now resides. His success as a merchant was the result of diligence and probity, which also secured the esteem of his fellow citizens. Later on in life Mr. Palmer became an active participant in politics, acquiring large influence, and filling many positions of trust with honor to himself, and to the satisfaction of his constituents. He was a member of the Board of Estimates of the State of Michigan, and later served in the Legislature for several terms as a member of the Upper House. Bringing to each and every station an enlightened intelligence and strong sense of duty, he was now chosen as one of Michigan's representatives in the Senate of the United States, occupying this high position for the full term of six years. In 1887 Senator Palmer was chosen President of the Water-ways Convention, held in Sault Saint Marie under the auspices of the Duluth Chamber of Commerce, and in that relation rendered valuable assistance to the cause of inter-lake navigation. In 1889 he was appointed by President Harrison minister plenipotentiary and envoy extraordinary to the court of Spain.

Mr. Palmer has fulfilled all that was expected of him. He early made known that he would accept no salary, and in many noble and elegant ways he has given proofs of his high honor, superior administrative ability and excellent parliamentary tactics, graciousness of personality and exceeding liberality. His entertainments of Eulalia, the Duke of Veragua and other distinguished personages as well as his unostentatious dinner to officers of the Commission will live long in many memories.

John Thilman Dickinson, Secretary of the Commission, was born in Houston, Texas, June 18, 1858, descended from a sturdy line of ancestors, who, on many a hard fought field poured out their lives amid the fires of martyrdom. Scotch history is permeated with the name of Dickinson, and always in connection with deeds of valor and honor. Early an orphan, Col. Dickinson was educated liberally at

home and abroad, and graduating in several of the Academic schools of the University of Virginia, in June, 1879, received the diploma of Bachelor-of-Law from that venerable institution. Returning to Texas he became one of the owners and the editor of the Houston *Telegraph*, and entered at once and actively upon public life. In January, 1881, while on a visit to Austin, the capital of the State, he was elected secretary of the House of Representatives of the Texas Legislature, and in May, 1882, was elected secretary of the Texas State Capital Board for supervising the construction of the largest State House in the Union and probably the largest red granite building in the world. During this time he was also elected secretary of the State Penitentiary Board, and several other State boards, and filled these positions under three governors, Hon. O. M. Roberts, Hon. John Ireland and Hon. L. S. Ross, and also served on the staff of Governor Ireland with the rank of colonel. In 1888 Col. Dickinson was elected general manager of the International Fair Association of San Antonio, and conducted the organization and preparation of the Texas-Mexican Exposition, which was successfully held in that city in November of the same year. This was regarded by the people as the best arranged and most attractive exposition of the products and resources of Texas and Mexico that had ever been held in the State. He remained at San Antonio as secretary and general manager of this Exposition Association until he visited Chicago at the time that city entered the contest for the location of the World's Fair. His services were immediately engaged and he was sent to interview members of Congress in several States in behalf of Chicago; he met the Chicago committee in Washington in December, 1889, and remained with them until Chicago was victorious in the contest. When the bill had passed, creating the World's Columbian Exposition, and providing for two commissioners from each State, Colonel Dickinson was appointed by General L. S. Ross, Governor of Texas, as the Democratic commissioner to represent that State.

Mr. Dickinson has been with the Commission from beginning to end; and for his painstaking methods and remarkable urbanity, he has earned for himself a degree of admiration and popularity that will encompass him so long as he lives. "I have never met a man so agreeable and so prompt in an official way," has been said of Secretary Dickinson not hundreds, but thousands of times.

COMMISSIONERS WORLD'S COLUMBIAN COMMISSION.

1. Frederick G. Bromberg, *Alabama.*
2. Oscar R. Hundley, *Alabama.*
3. Michael H. de Young, *California.*
4. Wm. Forsyth, *California.*
5. C. F. A. Bielby, *Florida.*
6. Richard Turnbull, *Florida.*
7. George A. Manning, *Idaho.*
8. John E. Stearns, *Idaho.*
9. Joseph Eiboeck, *Iowa.*
10. Wm. F. King, *Iowa.*
11. Jno. Bennett, *Kentucky.*
12. Jas. A. McKenzie, *Kentucky.*
13. Davidson B. Penn, *Louisiana.*
14. Thos. J. Woodward, *Louisiana.*
15. Augustus R. Bixby, *Maine.*

CHAPTER II.

MEMBERS OF THE NATIONAL COMMISSION.

Complete Roster of the Men Who Speak for the Nation and the States and Territories They Represent and the Places of Their Residence—Complete List of Officers—Members of the National Executive Committee and Board of Reference and Control.

THE following is a complete list of the names of the National Commissioners and their places of residence as at present constituted. It will be seen that every State and Territory is represented, including far-off Alaska and the District of Columbia. There is also presented the names of alternates and the places of their residence. Many of these have served at one time or another during the many meetings that have taken place. Also names of officers of the Commission, officers of the Executive Committee, and of the Board of Reference and Control.

President.....HON. THOMAS W. PALMER, of Michigan.
First Vice-President.....HON. THOMAS M. WALLER, of Connecticut.
Second Vice-President.....M. H. DE YOUNG, of California.
Third Vice-President.....DAVIDSON B. PENN, of Louisiana.
Fourth Vice-President.....GORTON W. ALLEN, of New York.
Fifth Vice-President.....ALEXANDER B. ANDREWS, of North Carolina.
Secretary.....HON. JOHN T. DICKINSON, of Texas.
Vice-Chairman Executive Committee. HARVEY P. PLATT, Toledo, Ohio.

COMMISSIONERS-AT-LARGE.

COMMISSIONERS.—Augustus G. Bullock, Worcester, Mass.; Gorton W. Allen, Auburn, N. Y.; Peter A. B. Widener, Philadelphia, Pa.; Thomas W. Palmer, Detroit, Mich.; R. W. Furnas, Brownville, Neb.; Patrick P. Walsh, Augusta, Ga.; Henry Exall, Dallas, Tex.; Mark L. McDonald, Santa Rosa, Cal.

ALTERNATES.—Henry Ingalls, Wiscasset, Me.; Louis Fitzgerald, New York, N. Y.; John W. Chalfant, Pittsburg, Pa.; James Oliver, South Bend, Ind.; Hale G. Parker, St. Louis, Mo.; John B. Castleman, Louisville, Ky.; H. C. King, San Antonio, Tex.; Thomas Burke, Seattle, Wash.

COMMISSIONERS OF DISTRICT OF COLUMBIA.

COMMISSIONERS.—Alexander T. Britton, Washington; Albert A. Wilson, Washington.

ALTERNATES.—E. Kurtz Johnson, Washington; Dorsey Clagett, Washington.

COMMISSIONERS OF THE STATES.

Alabama.—Commissioners—Fred'k G. Bromberg, Mobile; Oscar R. Hundley, Huntsville. Alternates—Gotthold L. Werth, Montgomery; William S. Hull, Sheffield.

Arkansas.—Commissioners—J. T. W. Tillar, Little Rock; J. H. Clendening, Fort Smith. Alternates—James T. Mitchell, Little Rock; Thomas H. Leslie, Stuttgart.

California.—Commissioners—Michel H. De Young, San Francisco; William Forsyth, Fresno. Alternates—George Hazleton, San Francisco; Russ D. Stephens, Sacramento.

Colorado. — Commissioners — Roswell E. Goodell, Leadville; Joseph H. Smith, Denver. Alternates—Henry B. Gillespie, Aspen; O. C. French, New Windsor.

Connecticut.—Commissioners—Leverett Brainard, Hartford; Thomas M. Waller, New London. Alternates—Charles F. Brooker, Torrington; Charles R. Baldwin, Waterbury.

Delaware.—Commissioners—George V. Massey, Dover; Willard Hall Porter, Wilmington. Alternates—Charles F. Richards, Georgetown; William Salisbury, Dover.

Florida.—Commissioners—C. F. A. Bielly, De Land; Richard Turnbull, Monticello.—Alternates—Dudley W. Adams, Tangerine; Jesse T. Bernard, Tallahassee.

Georgia.—Commissioners—Lafayette McLaws, Savannah; Charlton H. Way, Savannah. Alternates—James Longstreet, Gainesville; John W. Clark, Augusta.

Idaho.—Commissioners—George A. Manning, Post Falls; John E. Stearns, Nampa. Alternates—A. J. Crook, Hailey; John M. Burke, Wardner.

Illinois.—Commissioners—Charles H. Deere, Moline; Adlai T. Ewing, 38 Montauk Block, Chicago. Alternates—La Fayette Funk, Shirley; De Witt Smith, Springfield.

Indiana.—Commissioners—Thomas E. Garvin, Evansville; Elijah B. Martindale, Indianapolis. Alternates—William E. McLean, Terre Haute; Charles M. Travis, Crawfordsville.

Iowa.—Commissioners—Joseph Eiboeck, Des Moines; William F. King, Mount Vernon. Alternates—Charles E. Whiting, Whiting; John Hayes, Red Oak.

Kansas.—Commissioners—Charles K. Holliday, Jr., Topeka; J. R. Burton, Abilene. Alternates—M. D. Henry, Independence; S. H. Lanyon, Pittsburg.

Kentucky.—Commissioners—John Bennett, Richmond; James A. McKenzie, Oak Grove. Alternates—David H. Commingore, Covington; John S. Morris, Louisville.

Louisiana.—Commissioners—Davidson B. Penn, Newellton; Thomas J. Woodward, New Orleans. Alternates—Alphonse Le Duc, New Orleans; P. J. McMahon, Tangipahoa.

Maine. — Commissioners — Augustus R. Bixby, Skowhegan; William G.

Davis, Portland. Alternates—James A. Boardman, Bangor; Clark S. Edwards, Bucksel.

Maryland.—Commissioners—James Hodges, Baltimore; Lloyd Lowndes; Cumberland. Alternates—George M. Upshur, Snow Hill; Daniel E. Conkling, Baltimore.

Massachusetts.—Commissioners—Francis W. Breed, Lynn; Thomas E. Proctor, Boston. Alternates—George P. Ladd, Spencer; Charles E. Adams, Lowell.

Michigan.—Commissioners—M. Henry Lane, Kalamazoo; George H. Barbour, Detroit. Alternates—Ernest B. Fisher, Grand Rapids; Lyman D. Norris, Grand Rapids.

Minnesota.—Commissioners—H. B. More, Duluth; Orson V. Tousley, Minneapolis. Alternates—Thomas C. Kurtz, Moorehead; Muret N. Leland, Wells.

Mississippi.—Commissioners—Joseph M. Bynum, Rienzi; Robert L. Saunders, Jackson. Alternates—Fred W. Collins, Summit; Joseph H. Brinker, West Point.

Missouri.—Commissioners—Thomas B. Bullene, Kansas City; Charles H. Jones, St. Louis. Alternates—O. H. Picher, Joplin; R. L. McDonald, St. Joseph.

Montana.—Commissioners—Lewis H. Hershfield, Helena; Armistead H. Mitchell, Deer Lodge City. Alternates—Benjamin F. White, Dillon; Timothy E. Collins, Great Falls.

Nebraska.—Commissioners—Euclid Martin, Omaha; Albert G. Scott, Kearney. Alternates—William L. May, Omaha; John Lauterbach, Fairbury.

Nevada.—Commissioners—James W. Haines, Genoa; George Russell, Elko. Alternates—Enoch Strother, Virginia City. Richard Ryland, Reno.

New Hampshire.—Commissioners—Walter Aiken, Franklin; Charles D. McDuffie, Manchester. Alternates—George Van Dyke, Lancaster; Frank E. Kaley, Milford.

New Jersey.—Commissioners—William J. Sewell, Camden; Thomas Smith Newark. Alternates—Frederick S. Fish, Newark; Edwin A. Stevens, Hoboken.

New York,—Commissioners—Chauncey M. Depew, New York; John Boyd Thatcher, Albany. Alternates—James H. Breslin, New York; James Roosevelt, Hyde Park.

North Carolina.—Commissioners—Alex. B. Andrews, Raleigh; Thomas B. Keogh, Greensboro. Alternates—H. C. Carter, Fairfield; G. A. Bingham, Salisbury

North Dakota.—Commissioners—H. P. Rucker, Grand Forks; Martin Ryan, Fargo. Alternates—Charles H. Stanley, Steele; Peter Cameron, Tyner.

Ohio.—Commissioners—Harvey P. Platt, Toledo; William Ritchie, Hamilton. Alternates—Lucius C. Cron, Piqua; Adolph Pluemer, Cincinnati.

Oregon.—Commissioners—Henry Klippel, Jacksonville; Martin Wilkins, Eugene City. Alternates—J. L. Morrow, Heppner; W. T. Wright, Union.

Pennsylvania.—Commissioners—R. Bruce Ricketts, Wilkes Barre; John W. Woodside, Philadelphia. Alternates—George A. Macbeth, Pittsburg; John K. Hallock, Erie.

Rhode Island.—Commissioners—Lyman P. Goff, Pawtucket; Gardiner C. Sims, Providence. Alternates—Jeffrey Hazard, Providence; Lorillard Spencer, Newport.

South Carolina.—Commissioners—A. P. Butler, Columbia; John R. Cochran, Walhalla. Alternates—E. L. Roche, Charleston; J. M. Tindal, Sumter.

South Dakota.—Commissioners—Merritt H. Day, Rapid City; William McIntyre, Watertown. Alternates—S. A. Ramsey, Woonsocket; L. S. Bullard, Pierre.

Tennessee.—Commissioners—Lewis T. Baxter, Nashville; Thomas L. Williams, Knoxville. Alternates—Rush Strong, Knoxville; A. B. Hurt, Chattanooga.

Texas.—Commissioners—Archelaus M. Cochran, Dallas; John T. Dickinson, Austin. Alternates—Lock McDaniel, Anderson; Henry B. Andrews, San Antonio.

Vermont.—Commissioners—Henry H. McIntyre, West Randolph; Bradley B. Smalley, Burlington. Alternates—Aldace F. Walker, Rutland; A. S. Sibley, Montpelier.

Virginia.—Commissioners—Virginius D. Groner, Norfolk; John T. Harris, Harrisonburg. Alternates—Charles A. Heermans, Christiansburg; Alexander McDonald, Lynchburg.

Washington.—Commissioners—Henry Drum, Tacoma; Charles B. Hopkins, Spokane Falls. Alternates—George F. Cummin, Cheney; Clarence B. Bagley, Seattle.

West Virginia.—Commissioners—James D. Butte, Harper's Ferry; J. W. St. Clair, Fayetteville. Alternates—Wellington Vrooman, Parkersburg; John Corcoran, Wheeling.

Wisconsin.—Commissioners—Phil Allen, Jr., Mineral Point; John M. Coburn, West Salem. Alternates—David W. Curtis, Fort Atkinson; Myron Reed, Superior.

Wyoming.—Commissioners—Asahel C. Beckwith, Evanston; Henry G. Hay, Cheyenne. Alternates—Asa S. Mercer, Cheyenne; John J. McCormick, Sheridan.

TERRITORIES.

Alaska—Commissioners—Edward de Groff, Sitka; Louis L. Williams, Juneau. Alternates—Carl Spuhn, Killisno; N. A. Fuller, Juneau.

Arizona.—Commissioners—George F. Coats, Phœnix; W. K. Meade, Tombstone. Alternates—W. L. Vail Horn, Flagstaff; Herbert H. Logan, Phœnix.

New Mexico.—Commissioners—Thomas C. Gutierres, Albuquerque; Richard M. White, Hermosa. Alternates—L. C. Tetard, East Las Vegas; Charles B. Eddy, Eddy.

Oklahoma.—Commissioners—Othniel Beeson, El Reno; Frank R. Gammon, Guthrie. Alternates—John Wallace, Oklahoma City; Joseph W. McNeal, Guthrie.

Utah—Commissioners—Frederick J. Kiesel, Ogden; Patrick H. Lannan, Salt Lake City. Alternates—William M. Ferry, Park City; Charles Crane, Kanosh.

EXECUTIVE COMMITTEE.

President T. W. Palmer, Michigan, Chairman; Harvey P. Platt, Toledo, Ohio, Vice-Chairman; John T. Dickinson, Texas, Secretary; M. L. McDonald,

LYMAN J. GAGE,

FIRST PRESIDENT, WORLD'S COLUMBIAN EXPOSITION.

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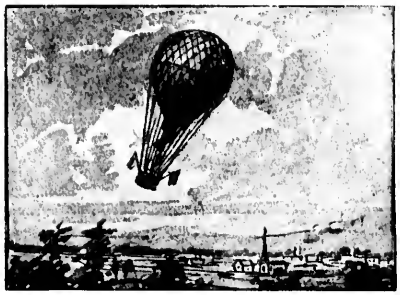
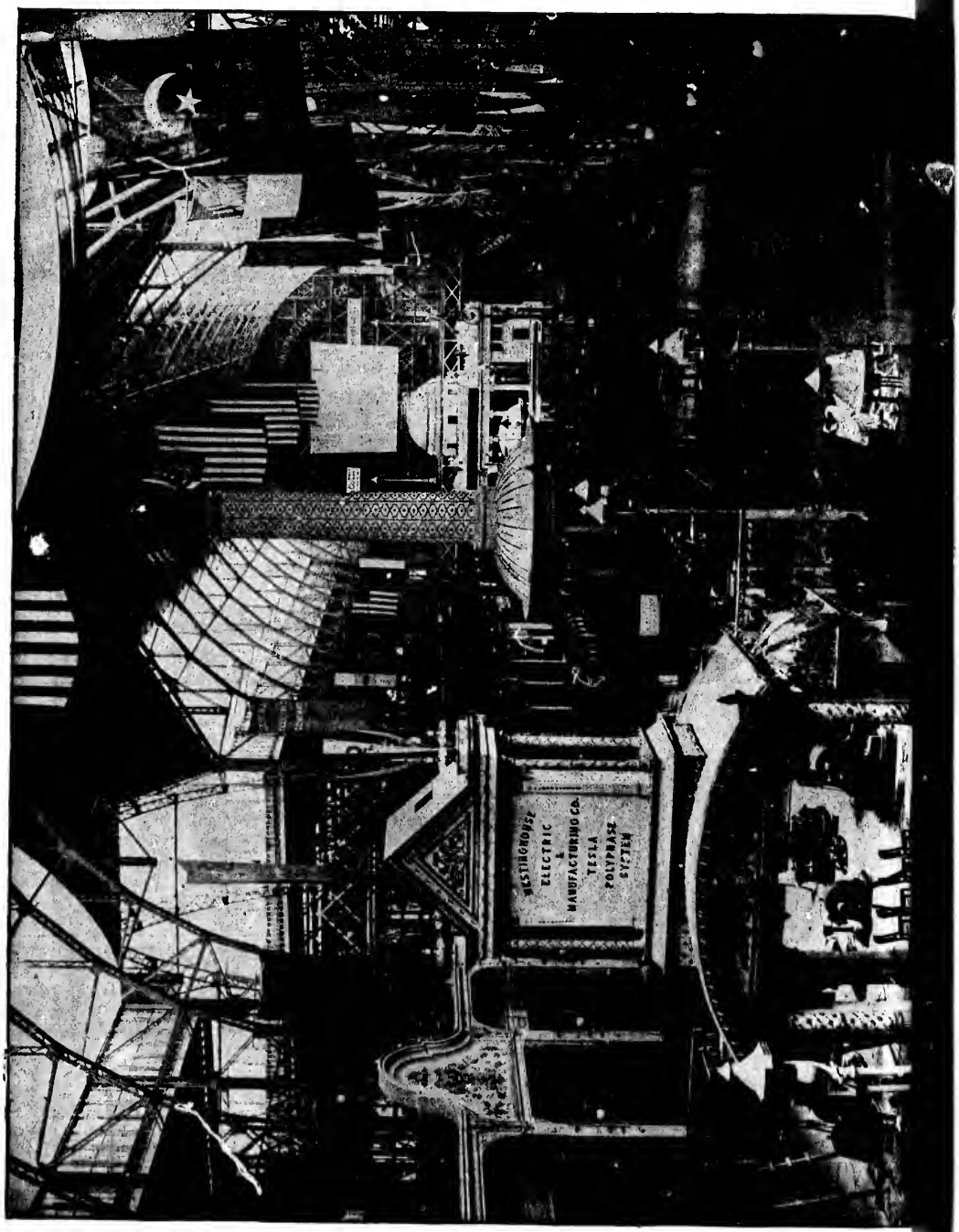
Commissioner-at-Large; R. W. Furnas, Commissioner-at-Large; Henry Exall, Commissioner-at-Large; P. A. B. Widener, Commissioner-at-Large; John T. Harris, Virginia; William J. Sewell, New Jersey; B. B. Smalley, Vermont; E. B. Martindale, Indiana; John Boyd Thacher, New York; Francis W. Breed, Massachusetts; Euclid Martin, Nebraska; James D. Butt, West Virginia; Adlai T. Ewing, Illinois; William F. King, Iowa; H. P. Platt, Ohio; L. McLaws, Georgia; T. L. Williams, Tennessee; C. F. A. Bielby, Florida; R. L. Saunders, Mississippi; L. H. Hershfield, Montana; R. E. Goodell, Colorado; A. T. Britton, District of Columbia.

BOARD OF REFERENCE AND CONTROL.

Members.—Thomas W. Palmer, of Michigan, President; Harvey P. Platt, of Ohio; George V. Massey, of Delaware; William Lindsay, of Kentucky; Michael H. de Young, of California; Thomas M. Waller, of Connecticut; Elijah B. Martindale, of Indiana; J. W. St. Clair, of West Virginia; John T. Dickinson, of Texas, Secretary. Alternates—M. H. Lane, of Michigan; W. D. Groner, of Virginia; R. L. Saunders, of Mississippi; P. H. Lannan, of Utah; Thomas Smith, of New Jersey; O. V. Tousley, of Minnesota; Euclid Martin, of Nebraska.





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CHAPTER III.

GEORGE R. DAVIS ELECTED DIRECTOR-GENERAL.

Some of the Remarks Made Upon the Occasion—Davis Has a Majority on the First Ballot—His Address to the Commission—Interesting Sketch of the Life and Service of Colonel Davis—A Brave Soldier, a Man of Honor and a Renowned Party Leader—He is Endowed With Splendid Qualities of Mind and Heart—The Standing Committees—Creation of the Great Departments—The Commissioners Wrestle With the Sunday Opening Question and Finally Vote for Open Sunday Gates.

THE second session of the Commission convened September 15, 1890, in answer to the call of President Palmer. Reports were received from the various committees appointed at the July session, and were ordered to be printed for future consideration,

In the discussion of a site for the Exposition, the Lake Front figured prominently as one of the projects, and for a while its acceptance seemed probable, but July 2, 1890, the Commission formally accepted Jackson Park and Midway Plaisance as the site, the Committee on Titles and Facilities of Transportation having given the matter careful attention. That committee reported that "so far as the title to Jackson Park and the Midway Plaisance (embracing 633 acres) is concerned, they believe it is vested in the World's Columbian Exposition, by the Act of the General Assembly of the State of Illinois passed at its recent session, and by ordinance of the South Park Commissioners, and is such a title as confers the right to use these parks as a site for the World's Columbian Exposition during the period required."

Early in the first session the Commission had decided to elect the director-general upon nomination of the directors of the Exposition, and during successive meetings up to September 19th, the duties aud powers of that office were the subject of legislation. On that day President Palmer, as chairman of the Executive Committee, presented the recommendation by the latter body, for the selection of Colonel George R. Davis; and therewith forwarded communications from the Executive Committee of the directory:

CHICAGO, September 18, 1890.

HON. THOS. W. PALMER, Chairman Executive Committee, World's Columbian Commission:

DEAR SIR: Acting under the courteous invitation extended by your committee to this board to express its peference in favor of one of the several candidates whose names are before you for appointment as director-general of your commission, the subject-matter of your invitation was submitted to our Board of Directors at a meeting held this evening.

After some discussion a vote was taken, resulting in a majority of the board in favor of Colonel George R. Davis.

This may therefore be received as an expression of the preference of this board upon the question.

Thanking you and your committee for their courtesy in this matter,

I am, very respectfully yours,

LYMAN J. GAGE,
President of the World's Columbian Exposition.

And Mr. Sewell, of New Jersey, submitted the following form of minority of the same committee;

The undersigned members of the Executive Committee respectfully dissent from the above report, and present for the position of director-general, the name of General Daniel H. Hastings, of Pennsylvania. We believe that he possesses every qualification for this responsible position, and most earnestly urge that his election will meet the best thoughts of the land, that the Columbian Exposition is in no sense local, and in every sense national.

W. J. SEWELL,
E. KONTZ JOHNSON,
A. T. EWING,
L. H. HERSHFIELD,
E. W. BREED.

The discussion that followed was animated and interesting. Hon. Adlai T. Ewing, the Illinois commissioner, arose to say that he was a dissenter merely because he was not inclined to favor a specific recommendation. "I do not wish to be understood as indorsing General Hastings," he declared. President Palmer beat the sounding board with his gavel. "We are now ready to ballot for director-general." The house and galleries hummed and trembled with the moment's sensation. Mr. Hershfield expressed similar sentiments to those enunciated by Mr. Ewing, and both reports were tabled for the time. The long communication from the local board was read at this juncture, stating the preference of that body for Colonel Davis, and then the speeches began. Seator Sewell, of New Jersey, was the first to speak. To select a director-general from precincts outside Chicago was the declaration of Senator Sewell. "We must secure a man of national reputation," he said. "This fair must be nationalized. Colonel Davis is an able man, but he is connected with the local board and as such will naturally have his mind biased toward local affairs. He is concerned too much in local affairs and local institutions. He will not be under our control, but under that of the local board. Therefore, I beg to present for your consideration the name of a Pennsylvanian, a man who in a great calamity demonstrated the greatest degree of executive ability ever displayed in his state." Senator Sewell was talking for General D. H. Hastings and he was applauded. President Palmer, indeed, was busy all day protesting against applause. Colonel James A. McKenzie, the distinguished Kentucky congressman, whose tongue is hung on threads of silver, said: "I rise to nominate a man who can fill this position with distinguished ability. I knew him in Congress; side by side we worked to secure the fair for Chicago. He differs from me politically, but he can administer the affairs of the office with as little partisanship as

any man anywhere." Colonel McKenzie made a masterly speech for Colonel Davis, and won the votes and influence of many commissioners. "Nominate him in the interest of fairness and prevent friction," said the tall Kentuckian, "We want no differences at this time. He has received the indorsement of the local body of the Chicago press, and I take it that is a fair reflex of the best judgment of all. He is young in years, big in development. Without the hearty support of the local board and the Chicago press we can hope for no success. I once more present the name of Colonel George R. Davis."

Mark L. McDonald, of California, seconded Colonel Davis' nomination. "I bespeak the approval of the magnificent state of California," said he. P. A. B. Widener also favored Colonel Davis, but at the same time complimented General Hastings. E. Kurtz Johnson, of Washington, was the first to disagree. He wanted the East recognized, he wanted the fair internationalized, he wanted General Hastings. "For the Empire State," said G. W. Allen, of New York, "I want to second the nomination of Colonel Davis, I feel proud of Chicago. We indorse her and Colonel Davis. Any city that can put up $13,250,000 is beyond reproach. Chicago has done this, and I am tired of hearing commissioners speak of this fair as a 'local' one." Richard Mansfield White, of New Mexico, seconded the nomination of General Hastings, and Mr. Holliday, of Kansas, that of Colonel Davis. General Groner, of Virginia, congratulated in advance the commission on the choice it would make, but he favored General Hastings. "Those who know me," said Judge Harris, of Virginia," know that I am under my colleague's control and do as he directs. But I want to second the nomination of Colonel Davis."

"The gentleman from Connecticut," said President Palmer, pointing his gavel at Governor Waller. "Mr. President," said the classical Mr. Waller, "early in our first session I introduced a resolution that the executive committee of this body and that of the local board should confer together and then report a man for director general, foreseeing such dicffiulties as these. I regret that these distinguished gentlemen of Chicago were not able to come to some unanimous conclusion. If such wisdom had guided them as I think this commission has displayed, no nomination would have been made except the one indicated by the Chicago board. Two nominations have been made, one from the executive committee and one by the gentleman from New Jersey. It has been charged that this exposition was running into the grooves of partisanship; that it was an administration exposition. There has been no democrat suggested for director general, and I mention with pride the fact that the political organization to which I belong has suppressed all partisan feelings in this matter." From house and gallery came applause. "I always go for a democrat," Governor Waller said, "everything else being equal. I can't help it; I was born that way. I should have been glad if a democrat had been a candidate for this position. Our judiciary committee has decided that we have all the powers; Chicago has nothing. Therefore, I shall vote for Colonel Davis. If he isn't good enough and fit for the place, Chicago will be the sufferer."

Then the ballot came. The president pounded the commission to order and the clerk began to call the roll. As each commissioner was called he responded by

dropping his ballot in the hats the tellers, Dr. Cochran of Texas and Mr. Bullock of Massachusetts, held. This ballot the president announced when all had voted. Ninety-two had voted; forty-seven were necessary to a choice, and the result was:

Davis	50
Hastings	32
McKenzie	6
Stevenson	3
Price	1

Mr. McClelland, of Pennsylvania, moved that the ballot be declared regular, although Colonel Davis had not been the choice of the Keystone State, and that the president be directed to cast the ballot for Colonel George R. Davis, of Illinois. President Palmer put the motion, which carried. President Palmer bent over his desk to write the ballot and observe the formalities of the occasion, and then the applause which he had been so long combatting broke out wildly. When it had subsided Commissioner Hirst, of Florida, moved that a committee of six be appointed to inform Colonel Davis of his election.

"It is moved that a committee of six be appointed," said the chair, "to wait on Colonel Davis and inform him of his election."

"And bring him in!" cried a commissioner.

"And bring him in," repeated President Palmer, "that he be put en rapport with the commission and nationalized."

The motion was carried, and Commissioners Hirst, McClelland, Groner, St. Clair, Sewell and McKenzie were appointed as the committee. While the committeemen were after Colonel Davis, Governor Waller introduced a resolution pledging the commission to adjourn sine die to-day. This was lost. Then Mr. Hirst and Colonel Davis came, arm in arm, down the aisle, and the chamber rang with applause. When they reached the desk Mr. Hirst said: "Mr. President, your committee appointed to notify Colonel George R. Davis of his election as director general and bring him in here have performed their duty and now present him to you." Once more the chamber applauded, and President Palmer said: "The chair will give his right hand of fellowship to Colonel Davis." As he said this, and the fury of the storm of applause broke forth, Mr. Palmer descended from the desk and conducted Colonel Davis up to the platform, saying as he did so: "I suppose it is no breach of decorum to applaud for an occasion like this for two reasons, that we have gotten through with a very difficult task, and we have gotten a man who has not been assailed either in the public print, by individuals or by any one this commission." Then, bowing, the president said:

"I take pleasure in introducing to you our new director general, Colonel George R. Davis. And may God help him to hold up his hands. Gentlemen, Colonel Davis."

When the ringing shouts ceased Colonel Davis advanced and, throwing back his long white locks, said:

"Mr. President and Gentlemen of the National Commission: Your committee has just notified me of the distinguished honor that you have conferred upon

me this morning. The selection made from Illinois and Chicago is complimentary to the city and State, and for the Local Board of Directors, for my city, my State, and myself I sincerely thank you. The selection of the director-general from untried men—men who have not had great experience—was a task for you to perform in which I most heartily sympathize with you. It is necessary in selecting a man for this position that you take much for granted, for an exhibition of an anniversary that comes only once in a hundred years leaves you but few men to select from who have had great experience.

"In the discharge of the duties of this great office I will bring it all the physical and mental forces that I command. The conduct of the office shall be of high grade, and it shall be my duty to conform strictly and in every detail to the wish of this distinguished body. Politics have been referred to, and as I understand the position I desire to say one word in regard to that, and that is that I cannot recognize that the constituency that elects me here to-day consists of one-half Republicans and one-half Democrats. It will be the duty of an honorable man to so conduct his office in his intercourse with all who come in connection with him—n the appointments that he has to make—to recognize the fact; and from the fact that it was a suggestion of my own, formulated by myself, and favored by myself when it was put in the Act of Congress, recognized as 'the spirit of the Act of Congress.' I will not, as your director-general, in any way fail to observe it in every particular.

"The office will be conducted strictly upon business principles. I recognize teat you require in all such officers as may be placed under my command the highest talent, the best ability, and the greatest capacity that we can command; that is a National Exposition and an International Exposition and not a Local Exposition; that we will draw our forces from the country, draw our forces from wheresoever they may come, provided they are equal to the emergency.

The administration of my office will be an example, so far as it is possible for me to make it such, of the application of legal principles to business methods with military discipline. I thank you, gentlemen, for the compliment, and am prepared to enter upon the duty."

Col. George R. Davis was born in the town of Palmer, Mass., in the year 1840, the son of Benjamin and Cordelia (Buffington) Davis, the former a native of Ware, Mass., and the latter a member of a well known Quaker family of Connecticut. George attended the public schools, and in other respects passed his boyhood after the manner of New England boys, and later prepared for college, graduating from Williston Seminary at Easthampton. This was just prior to the opening of the War of the Rebellion, so that instead of entering college, as he had anticipated, he, at the age of twenty-two, responded to the call for volunteers, and enlisted in the army as a private in Company H, Eighth Regiment Massachusetts Infantry. By gradual promotion he rose to the rank of captain, and in that capacity served with the Eighteenth Army Corps in the North Carolina campaign until August, 1863. Resigning his commission, he now returned to Massachusetts, clothed with proper authority, and recruited and organized a battery of light artillery. From

this he was soon transferred to the Third Regiment Rhode Island Volunteer Cavalry, with the rank of major, and commanded it until the close of the war in 1865. After the war was over, Col. Davis received an appointment in the civil department of the regular army, and was attached to the Department of the Missouri, of which General Sheridan was then in command. He served in the West with General Sheridan in the Indian campaign of 1868 and 1869, of which the engagement at the headquarters of the Washita was the most decisive, resulting in the defeat and routing of the famous chief "Black Kettle" and his band.

Col. Davis was on duty at the headquarters of General Sheridan when that commander was stationed in Chicago in 1869, and continued his connection with the army until May 1, 1881, when he resigned and took up his residence in Chicago, where he has made his home ever since. Col. Davis has always been a staunch Republican, and since his residence in Chicago has held a conspicuous place in the councils of his party as a recognized leader. He was elected to the United States Congress from the Second District of Illinois in 1878, and re-elected for the two succeeding terms. As a congressman Col. Davis naturally took a prominent and leading place, and was one of the few of Chicago's representatives to that body whose efforts in behalf of their constituents were crowned with success. Among the important acts of legislation in which he took a prominent part, it is but just to say that securing a large appropriation for improving the Chicago harbor was chiefly due to his efficient and faithful work. In 1886 he was elected county treasurer of Cook County, Illinois, for a term of four years. When it was decided by Congress to celebrate the four hundredth anniversary of the landing of Columbus on American soil by a World's Exposition Col. Davis was one of the foremost in the promotion of the enterprise. A man of fixed opinions, iron will, unfaltering perseverance and unusual executive ability, he at the same time possesses a tireless energy, and whatever he attempts stops at nothing short of its attainment. He is a man of great personal magnetism, courteous yet dignified in manners, generous, kind-hearted and genial, and has always attracted to himself many warm friends. With his splendid qualities of mind and heart he combines a finely proportioned physique, being strong in structure and of robust constitution. He is a handsome man in both form and feature, and a mass of iron-gray hair gives a distinguished air to an otherwise striking personality. Col. Davis was married in 1867, to Miss Gertrude Schulin, of New Orleans, Louisiana, by whom he has two sons and four daughters.

When the new Director-General had concluded his speech, and the hilarity of the occasion had become subdued, President Palmer announced the standing committees as follows, in which there have been no material changes:

Committee on Judiciary, Rules and By-Laws—William Lindsay, Commissioner-at-large, Chairman; G. V. Massey, Delaware; J. W. St. Clair, West Virginia; William J. Sewell, New Jersey; B. B. Smalley, Vermont; L. Gregg, Arkansas; O. R. Hundley, Alabama; P. Allen, Jr., Wisconsin.

Committee on Tariffs and Transportation—V. D. Groner, Virginia, Chairman; W. Aiken, New Hampshire; C. M. Depew, New York; W. McClelland

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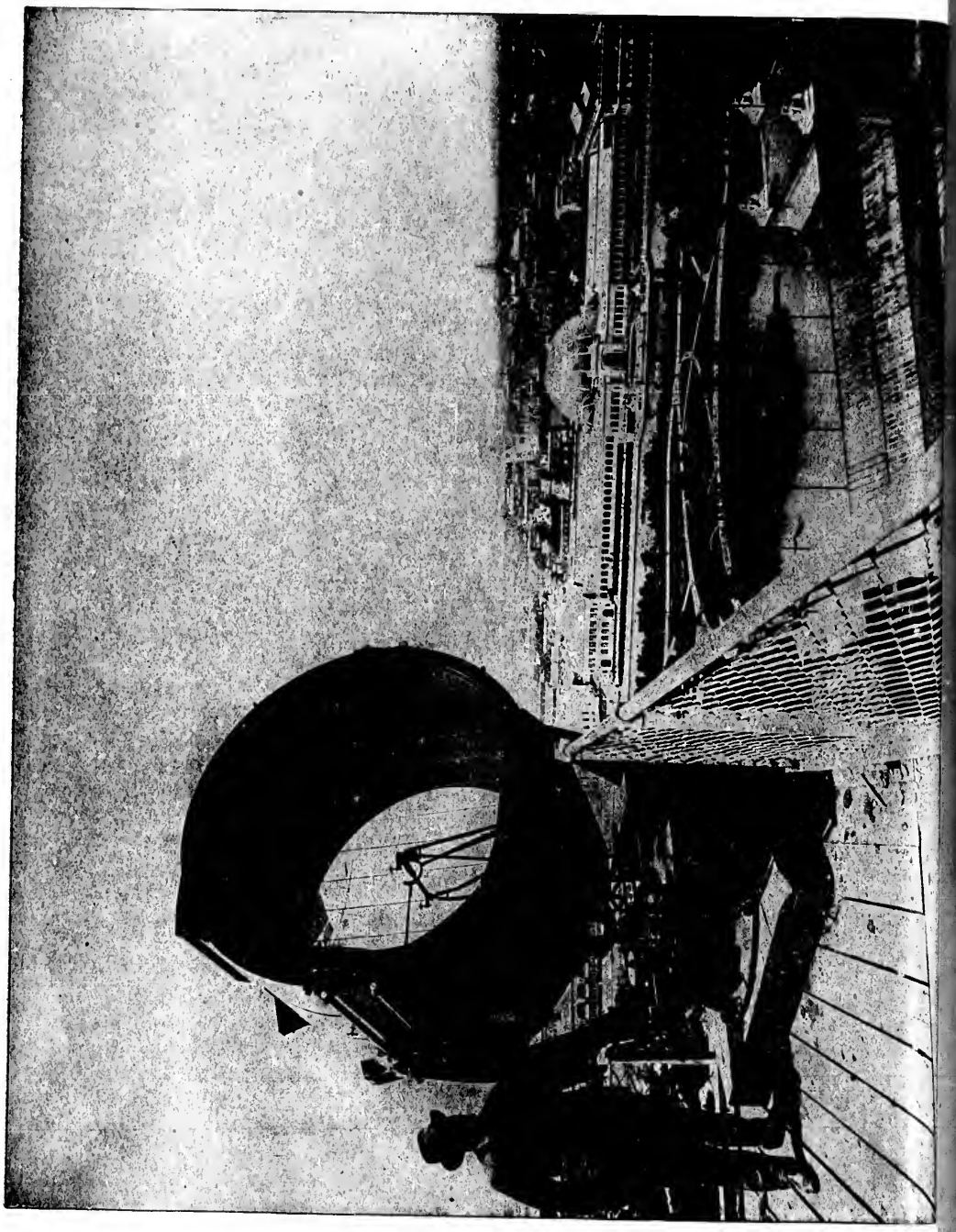

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Pennsylvania; M. H. Lane, Michigan; J. D. Adams, Arkansas: L. Brainard, Connecticut; A. B. Andrews, North Carolina; L. Lowndes, Maryland; O. R. Hundley, Alabama; J. W. Haines, Nevada; G. C. Sims, Rhode Island; H. H. McIntyre, Vermont; T. C. Gutierres, New Mexico; H. P. Rucker, North Dakota; E. Martin, Nebraska.

Committee on foreign Affairs—C. M. Depew, New York, Chairman; Thomas M. Waller, Connecticut; G. V. Massey, Delaware; A. A. Wilson, District of Columbia; R. C. Kerens, Commissioner-at-large; C. H. Way, Georgia; M. H. Lane, Michigan; D. B. Penn, Louisiana.

Committee on Fine Arts—A. G. Bullock, Commissioner-at-large, Chairman; C. M. Depew, New York; A. A. Wilson, District of Columbia; O. V. Tousley, Minnesota; W. I. Buchanan, Iowa; M. H. De Young, California; James Hodges, Maryland; T. J. Woodward, Louisiana.

Committee on Science, History, Literature and Education—O. V. Tousley, Minnesota, Chairman; A. C. Beckwith, Wyoming; F. G. Bromberg, Alabama; C. H. Jones, Missouri; T. J. Woodward, Louisiana; A. G. Bullock, Commissioner at-large; W. F. King, Iowa; J. A. McKenzie, Kentucky.

Committee on Agriculture—W. I. Buchanan, Iowa, Chairman; L. T. Baxter, Tennessee; R. Turnbull, Florida; A. M. Cochran, Texas; J. L. Mitchell, Wisconsin; J. W. Haines, Nevada; D. B. Penn, Louisiana; J. M. Bynum, Mississippi; A. P. Butler, South Carolina; A. G. Scott, Nebraska; O. Beeson, Oklahoma; H. H. McIntyre, Vermont; J. D. Adams, Arkansas; M. Wilkins, Oregon; William Forsyth, California; F. J. V. Skiff, Colorado.

Committee on Live Stock—J. L. Mitchell, Wisconsin, Chairman; John Bennett, Kentucky; T. E. Proctor, Massachusetts; G. A. Manning, Idaho; G. Russell, Nevada; E. B. Martindale, Indiana; H. Drum, Washington; J. D. Miles, Oklahoma; T. C. Gutierres, New Mexico; H. P. Rucker, North Dakota; H. Exall, Commissioner-at-large; L. T. Baxter, Tennessee; A. H. Mitchell, Montana; W. McIntyre, South Dakota; A. T. Ewing, Illinois; H. G. Hay, Wyoming.

Committee on Horticulture and Floriculture—W. Forsyth, California, Chairman; G. A. Manning, Idaho; W. H. Porter, Delaware; C. D. McDuffie, New Hampshire; T. E. Garvin, Indiana; F. J. V. Skiff, Colorado; W. Zeckendorf, Arizona; A. R. Bixby, Maine; R. Turnbull, Florida; J. W. Woodside, Pennsylvania; C. H. Richmond, Michigan; J. R. Cochran, South Carolina; J. Hodges, Maryland; C. H. Deere, Illinois; F. J. Kiesel, Utah; P. Allen, Jr., Wisconsin.

Committee on Finance—Charles H. Jones, Missouri, Chairman; L. H. Hershfield, Montana: James Hodges, Maryland; H. H. McIntyre, Vermont; A. B. Andrews, North Carolina; A. R. Bixby, Maine; J. T. Harris, Virginia; P. H. Lannon, Utah.

Committee on Auditing—T. E. Garvin, Indiana, Chairman; P. Allen, Jr. Wisconsin; C. K. Holliday, Jr., Kansas; J. D. Butt, West Virginia.

Committee on Ceremonies—J. D. Adams, Arkansas, Chairman; P. A. B Widener, Commissioner-at-large; William Lindsay, Commissioner-at-large; V. D

Groner, Virginia; C. H. Richmond, Michigan; G. W. Allen, Commissioner-at-large; M. B. Harrison, Minnesota; R. C. Kerens, Commissioner-at-large.

Committee on Classification—C. H. Deere, Illinois, Chairman; W. McClelland, Pennsylvania; L. B. Goff, Rhode Island; M. Ryan, North Dakota; M. H. de Young, California; T. L. Williams, Tennessee; A. M. Cochran, Texas; T. Smith, New Jersey; T. B. Keogh, North Carolina; C. H. Way, Georgia; J. D. Miles, Oklahoma; H P. Platt, Ohio; G. F. Coats, Arizona; A. C. Beckwith, Wyoming; J. Hirst, Florida; T. E. Garvin, Indiana.

Committee on Manufactures—L. Brainard, Connecticut, Chairman; T. E. Proctor, Massachusetts; T. B. Bullene, Missouri; W. McClelland, Pennsylvania; R. M. White, New Mexico; W. H. Porter, Delaware; C. H. Deere, Illinois; T. Smith, New Jersey; W. Ritchie, Ohio; G. C. Sims, Rhode Island; L. McLaws, W. Aiken, New Hampshire; J. M. Bynum, Mississippi; F. J. Kiesel, Utah; William McIntyre, South Dakota; W. Zeckendorf, Arizona.

Committee on Commerce—L. Lowndes, Maryland, Chairman; J. B. Thacher, New York; J. M. Bynum, Mississippi; T, M. Waller, Connecticut; L. B. Goff, Rhode Island; T. E. Proctor, Massachusetts; M. Wilkins, Oregon; R. Turnbull, Florida; George V. Massey, Delaware; H. Exall, Commissioner-at-large; J. R. Cochran, South Carolina; H. P. Platt, Ohio; T. J. Woodward, Louisiana; H. Drum, Washington; C. D. McDuffie, New Hampshire; C. H. Way, Georgia.

Commitee on Mines and Mining—F. J. V. Skiff, Colorado, chairman; M. H. Day, South Dakota; L. T. Baxter, Tennessee; J. W. St. Clair, West Virginia; J. W. Woodside, Pennsylvania; A. H. Mitchell, Montana; L. Lowndes, Maryland; G. Russell, Nevada; F. G. Bromberg, Alabama; J. E. Stearns, Idaho; G. F. Coats, Arizona; C. H. Richmond. Michigan; P. H. Lannan, Utah; H. Drum, Washington; R. M. White, New Mexico; M. L. McDonald, Commissioner-at-large.

Committee on Fisheries and Fish Culture—A. R. Bixby, Maine, Chairman; A. P. Butler, South Carolina; W. J. Sewell, New Jersey; R. E. Goodell, Colorado; C. B. Hopkins, Washington; R. L. Saunders, Mississippi; Michigan; H. Kippell, Oregon.

Committee on Electricity and Electrical Appliances—G. C. Sims, Rhode Is.and, Chairman; C. B. Hopkins, Washington; M. Ryan, North Dakota; G. W. Allen, Commissioner-at-large; W. G. Davis, Maine; F. W. Breed, Massachusetts; O. R. Hundley, Alabama; R. R. Price, Kansas.

Committee on Forestry and Lumber—J. W. St. Clair, West Virginia, Chairman; R. M. White, New Mexico; W. G. Davis, Maine; A. G. Scott, Nebraska; H. Kippell, Oregon; L. Gregg, Arkansas; R. L. Saunders, Mississippi; H. G. Hay, Wyoming.

Committee on Macninery—William Ritchie, Ohio, Chairman, W. H. Porter, Delaware; John Bennett, Kentucky; W. Forsyth, California; L. B. Goff, Rhode Island; M. H. Day, South Dakota; T. B. Bullene, Missouri; O. Beeson, Oklahoma.

Committee on World's Congressess—J. W. Woodside, Pennsylvania, Chairman; C. H. Jones, Missouri; John Bennett, Kentucky; A. A. Wilson, District of Columbia; F. G. Bromberg, Alabama; J. B. Thacher, New York; O. V. Tousley, Minnesota; B. B. Smalley, Vermont.

Committee on Printing—C. K. Holliday, Jr., Kansas, Chairman; T. B. Keogh, North Carolina; J. T. Harris, Virginia; P. H. Lannan, Utah; J. E. Stearns, Idaho; T. B. Bullene, Missouri.

Before adjourning the National Commission created the great departments into which the fair has been divided, as follows:

A—Agriculture. Fruits, Plants, Food and Food Products, Farming Machinery and appliances. B—Horticulture. Seeds, Wines, Nursery Trees, Garden Implements. C—Live Stock. Domestic and Wild Animals. D—Fish, Fisheries. Fish Products and Apparatus of Fishing. E—Mines, Mining and Metallurgy. F—Machinery. G—Transportation Exhibits. Railways. H—Manufactures. J—Electricity and Electrical Appliances. K—Fine Arts. L—Liberal Arts. M—Ethnology. G—Publicity and Promotion. P—Foreign Affairs.

The Commission devoted much time to other objects of more or less interest to the fair, and then adjourned.

It has met a number of times since, and has wrestled with the liquor and Sunday opening questions each meeting, and finally voted in favor of Sunday opening and in favor of leaving the matter of selling light wines and malt liquors with the directors. Subsequently the Commission put itself on record by voting in favor of Sunday closing, 54 to 6. There are those who believe the National Commission a costly and unnecessary adjunct. On the whole however, it has stood up nobly and steadfastly for Jackson Park and voted down all dual and other sites. It has also maintained the dignity of the Government throughout, and often checked the directory when the latter betrayed an occasional inclination to run things irrespective of all other organizations.

SITE OF WOMAN'S AND FISHERIES BUILDINGS BEFORE GROUND WAS BROKEN.

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PART III.

COMMENCEMENT AND PROGRESS OF WORK.

CHAPTER I.

A WONDERFUL METAMORPHOSIS.

Jackson Park in 1891—An Uninviting Strip of Sand, Swamp and Scrub Oaks—No Redeeming feature Except Area and Location—The Most Magnificent Transformation Scene Ever Presented to Mankind—Twenty-five Millions of Dollars Expended on Buildings and Improvements—Director of Works Daniel H. Burnham and His Engineers, Architects, Sculptors, Painters and Landscape Designers, Transform a Spot of Swamp and Sand into a White City of Palaces and Collonades—Terraces, Towers, Turrets and Statuary on Every Hand—Plantations of Massive Foliage and Flowering Plants—Beautiful Fountains and Picturesque Water Ways—Artificial Canals That Put to Blush Shore of the Bride of the Sea—Burnham and His Staff.

IT was many months before those authorized to select a site for the Exposition buildings arrived at a generally harmonious and satisfactory decision. Chicago is topographically divided into three populous sections: the North Side, the West Side and the South Side. But while the two former had active and influential adherents, it was early demonstrated that a large majority of the Directors and Commissioners had concluded in favor of the latter. How and where to locate on the South Side, however, provoked extended and animated discussion between the Directors and Commissioners until at last it was unanimously agreed to accept from the South Park managers those portions of their territory known as Jackson Park and Midway Plaisance.

The Jackson Park of 1891 and the Jackson Park of 1893 present a system of transformation that cannot be adequately described. Suffice it to say that the Jackson Park of 1891 was about as uninviting a strip of sand ridges and scrub oaks as fringes Lake Michigan at any point. Two years ago this unsightly strip did not possess one redeeming feature except area and location—to-day it is not only the most beautiful and spectacular spot in the world, but it is the grandest and most georgeous transformation scene ever presented to mankind.

In January 1891 there were 556 acres of swampy, ridgey, sandy ground, with here and there clumps of scrubby trees and some herbage. In May 1893, there

were $25,000,000 worth of buildings and other improvements, containing exhibits valued at $100,000,000.

In October, 1890, the Committee on Grounds and Buildings appointed Mr. D. H. Burnham as chief of construction, and on December 8, 1890, the consulting architects, the consulting landscape architects and the consulting engineer formed a consulting board under the chairmanship of the chief of construction. Late in November, 1890, the consulting board, under its instructions, entered upon the duty of devising a general plan for the Exposition, taking as a basis for the study of the problem the classified list of exhibits which had been prepared by a committee charged with that duty. The list, together with such advice received directly from the committee, dictated the number and the size of the buildings which would be required to meet the intention of the Act of Congress. The larger part of the site to be dealt with was a swampy, sandy flat, liable at times to be submerged by the lake. Other parts were low ridges, which had originally been sand bars thrown up by the lake. Upon some of these ridges there were trees, most of them oaks, of stunted habit because of the sterile and water-soaked soil in which they had grown, and the extreme exposure to frigid winds from the lake, to which they had been subject to a late period every spring. The idea was that there should be a system of navigable water-ways, to be made by dredging-boats working inward from the lake through the lowest parts of the site, the earth lifted by the boats to be so deposited as to add to the area, and increase the elevation of the higher parts, which would thus become better adapted to pleasure-ground purposes, and to be used as the sites for the buildings of the Exposition.

The plat contemplated the following as leading features of design: That there should be a great architectural court with a body of water therein; that this court should serve as a suitably dignified and impressive entrance hall to the Exposition, and that visitors arriving by train or by boat should all pass through it; that there should be a formal canal leading northward from this court to a series of broader waters of a lagoon character, by which nearly the entire site would be penetrated, so that the principal Exposition buildings would each have a water, as well as a land frontage, and would be approachable by boats; that near the middle of this lagoon system there should be an island, about fifteen acres in area, in which there would be abounding clusters of the largest trees growing upon the site; that this island should be free from conspicuous buildings and that it should have a generally secluded, natural, sylvan aspect, the existing clusters of trees serving as centers for such broad and simple larger masses of foliage as it would be practicable to establish in a year's time by plantations of young trees and bushes. Because the water in the lagoons would be subject to considerable fluctuations, it was proposed that its shores should be occupied by a selection of such aquatic plants as would endure occasional submergence and yet survive an occasional withdrawal of water from their roots.

Time pressing, the plat, with a brief written specification, was submitted to the corporation, and, after due consideration, on the 1st of December, 1890, was adopted as the plan of the Exposition. Shortly afterwards this action was ap-

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D. H. BURNHAM,

DIRECTOR OF WORKS, WORLD'S COLUMBIAN EXPOSITION.

proved by the World's Columbian Commission, and an order given to proceed with the execution of the design. The plat presented no studies of buildings other than the outlines of the space to be occupied by those, ten in number, which had been contemplated in the instructions received by the Consulting Board from the Committee on Classifications. The next step was the selection of architects to design the buildings, and the committee authorized Mr. Burnham to select five architects outside of the city of Chicago to design the five principal buildings around the court. Later Mr. Burnham was authorized to appoint five architects from Chicago to design the remaining buildings which had been determined on. The committee determined, however, to select an architect for the Woman's Building by competition, to be confined strictly to women. By March 1, 1891, the chief of construction having apportioned the work among the architects, was enabled to form an estimate of the work to be done by his department. Roughly speaking, it consisted of reclaiming nearly seven hundred acres of ground, only a small portion of which was improved, the remainder being in a state of nature, and covered with water and wild-oak ridges, and in twenty months converting it from a sedgy waste by the borders of an inland sea, into a site suitable in substance and decoration for an exposition of the industries and the entertainment by the republic of representatives of all the nations of the world. On its stately terraces a dozen palaces were to be built—all of great extent and highest architectural importance—these to be supplemented by hundreds of other structures, some of which were to be almost the size of the Exposition buildings themselves; great canals, basins, lagoons, and islands were to be formed; extensive docks, bridges, and towers to be constructed. The standard of the entire work was to be kept up to a degree of excellence which should place it upon a level with the monuments of other ages. It meant, in short, that an orginization must be quickly formed which should associate the ablest architects, landscape designers, painters, sculptors, and engineers of the country. By the summer, all of the ten buildings first designed were under contract. From that time on, the work of designing and of construction was carried forward most urgently by day and by night, and all arrangements of the construction department were completed and in readiness for the opening.

In October, 1892, the title of Director of Works was conferred on Mr. Burnham with enlarged duties and powers added to those already exercised by the chief of construction.

The first shovelful of soil was removed in February, 1891, and in six months twelve hundred thousand cubic yards of earth had been handled, costing within five thousand dollars of half a million. Ground was broken for the first building—that of Mines and Mining—on the 2d of July, 1891. Landscape gardening and construction had now commenced in earnest; and under the supervision of Daniel H. Burnham, the work was kept up until its completion in May, 1893. Throughout the entire work Mr. Burnham has sacrificed to the Exposition his own personal interest and given his time almost unreservedly to this work. Making his headquarters at Jackson Park in the very heart of the activity, he has been most intimately and directly associated with each of the many prob-

lems arising and necessary of solution before the completion of the work was assured. He has had from the beginning general charge of the construction of buildings and supervision of the business thereof, the preparation of the grounds and engineering incident to a proper prosecution of the entire work. He has had the supervision of the buildings erected by outside parties and the maintenance of all buildings belonging to the Exposition. He has been required to examine all bids and propositions for work under his control, and to organize bureaus of architecture, engineering, landscape gardening, sanitation; to hire and dismiss all employes in his department, and fix, subject to approval, the compensation for their services. He has the employment (subject to the approval or confirmation of the Council of Administration) and general charge of all the working forces within the grounds of the Exposition necessary to the maintenance of order, the protection of property from fire or other destructive elements, to supply heat, power, light, water and disposal of sewerage, the care of the grounds and all service necessary to the practical administration of the Exposition inside the grounds.

Mr. Burnham was born in Henderson, N.Y., 1854. In 1855 his parents moved to Chicago, where Mr. Burnham, has sinced lived, with the exception of two years spent in study in the East, and one year which, as a young man, he spent in the activity of camp and mining life in Nevada. Upon his return to Chicago, he at once resumed his architectural studies, forming a partnership with the late John W. Root in 1873, since which time he has been continuously engaged in the practice of his profession. Mr. Burnham's connection with the Exposition commenced shortly after Chicago had been selected as its site, he and Mr. Root working up numerous preliminary plans in the early summer of 1890.

The following are the names of the efficient gentlemen who compose the staff of Director of Works Burnham and the designation of their positions: E. R. Graham, Assistant Director of Works: M. B. Pickett, Secretary of Works; F. L. Olmsted & Co., Landscape Architects; R. Ulrich, Superintendent of Landscape; Charles B. Atwood, Designer-in-chief; F. D. Millet, Director of Decoration; C. Y. Turner, Assistant Director of Decoration; E. D. Allen, Superintendent of Painting; W. H. Holcomb, General Manager of Transportation; E. G. Nourse, Assistant General Manager Transportation; E. C. Shankland, Chief Engineer; William S. McHarg, Engineer of Water Supply and Sewerage; C. M. Wilkes, Assistant Engineer Water Department; John E. Owens, M.D., Medical Director; R. H. Pierce, Electrical Engineer; W. E. Brown, B. B. Cheeseman, J. K. Freitag, H. S. Hibbard, C. A. Jordan, J. H. Murphy, A. C. Speed, F. W. Watts, M. Young, Building Superintendents; C. D. Arnold, Chief Department of Photography; C. F. Foster, Mechanical Engineer; J. W. Alvord, Engineer, Grades and Surveys; G. H. Binkley, Assistant Engineer, Grades and Surveys; Edward W. Murphy, Fire Marshal, 14th Batt. Chicago Fire Department; F. J. Mulcahy, Purchasing Agent; F. O. Cloyes, Chief Draftsman; W. D. Richardson, General Superintendent of Buildings; D. A. Collins. Superintendent of Interior Docking; E. R. Loring, Superintendent of plumbing; A. A. Clark, Superintendent of Midway Plaisance; J. Worcester, Superintendent of Elevated Railway.

VISITING STATESMEN AT THE FAIR DURING ITS CONSTRUCTION.

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CHAPTER II.

EARLY PREPARATION OF FLOWERS.

John Thorpe Sent to the Front—The Erection of Greenhouses and other Floricultural Structures—Loans of Palms and Ferns By Wealthy Owners of Conservatories in Philadelphia and New York—Millions of Plants Under Way—A Mountain of Palms and Ferns—A Winter Exhibition—Magnificent Tribute Paid the Great Florist by the Brilliant John McGovern—Press and People Filled With Admiration and Praise—A Flowery Article from "Uncle John."

THERE are four men connected with the World's Columbian Exposition whose names will live long after many others of prominence and worth have been partly or wholly forgotten. These are Davis, Burnham, Handy and Thorpe, whose identification with the commencement, progress and completion of the great Fair has been brilliant, impressive and eminently satisfactory. It is underrating none of the other earnest and competent chiefs of departments and hundreds of others who by their energy, wisdom and ability contributed vastly toward the sublime creation to make especial mention of this quartette of masters.

Early in the day of construction it was apparent that the work in floriculture must be commenced as soon as possible; and John Thorpe, the most eminent floriculturist of any age, who had already been appointed chief of floriculture, was instructed to proceed at once to Jackson Park and make preparations for what has proven to be the greatest assemblage of plants that has ever been seen.

It was not many months, therefore, after the first spadeful of earth had been turned, before long rows of greenhouses and a system of heating for the propagation of various plants had been erected;—and more than a year before the opening of the Exposition "Uncle John," as Mr. Thorpe is best known, was patiently nursing hundreds of thousands of plants that to-day bewilder the observer in the rotunda and eastern curtains of the Horticultural Building and which have at times ornamented and enlivened every structure at Jackson Park. So intelligently and satisfactorily did the great florist proceed with his work that a fall and winter exhibit was given prior to the spring opening which alone attracted nearly half a million people and earned over a hundred thousand dollars. A mountain of choice palms and ferns and cactaceous plants which "Uncle John" had secured as loans from owners of conservatories in New York and Philadelphia excited praise and admiration from all beholders and Mr. Thorpe became a favorite not only with the press and the public, but with all the officers interested in the administra-

tion of affairs. Mr. John McGovern, the brilliant and distinguished editor of the *Illustrated World's Fair*, has truly said of him: "In the huge volume of his knowledge, each page is a flower, the tenderest, sweetest, lovliest thing that man touches with his five rude senses. By common fame, no other man known to the western hemisphere has come upon such a height of experience, instinct and devotion. John Thorpe was born in England. Three generations before him worked in the gardens along the Thames and elsewhere in England. He commenced at the age of seven, and has been among plants and flowers for nearly fifty years, laboring at Stratford-on-Avon fourteen years. His patrons and admirers are innumerable, conspicuous among whom are the Goulds, Vanderbilts, Lorillards, Childs, Drexel, and others. He has been in this country about eighteen years, owns extensive gardens and greenhouses in New York, and was for several years president of the Society of American Florists. He is probably the best known floriculturist in America, and is the presiding spirit over the floral exhibit at Jackson Park."

The author has been permitted by the editor of the *Illustrated World's Fair* to publish the following special article by Mr. Thorpe:

Ever since God commanded "Let there be light!" all human kind has lived among plants and flowers, and from the earliest period down to the present day a love and respect for these beautiful gifts of nature has been manifested in every habitable part of the globe.

The Bible contains many allusions to others than the Rose of Sharon and the lilies of the field, while Solomon, according to the book of Ecclesiastes, gave much of his time and wisdom to the care and collection of the many varieties within his reach, and tradition transmits the delightful legendary information that the *Arum Sanctum* was taken from Egypt to Jerusalem to adorn the gardens of the voluptuous king. The monarch upon his throne rejoices in the possession of rare and beautiful flowers, while the untutored savage betrays a reverence for his native plants; and all ancient and modern languages are full of eloquent passages where flowers are used as a figure of speech to express a sense of beauty and loveliness. The bards of all times have dedicated stanzas to these silent inhabitants of hillside and dale, and given sentiment and tongue to blossom, bud and leaf.

There is no land and no clime where flowers are not found in greater or lesser varieties and abundance. "From Greenland's icy mountains to India's coral strand," and from the Azores to antipodal isles, the earth is promiscuously strewn with millions upon millions of varieties of plant life, many of the blossoms of which exhale distillations of delicious scent. Europe, Asia, and Africa are the homes of innumerable varieties, and America is even richer in the abundance and diversity of her floricultural treasures. Mexico is bespangled with brilliant specimens, and so also is Cuba, Florida and Arizona. China, Japan and the Hawaiian islands may be called lands of flowers. The Pacific Coast, from the Cascade mountains to the Cordilleras, is carpeted with wild flowers of amazing variety, beauty and odor for a number of months during the year, from December to May, while the uncultivated portions of the great valleys of the Sacramento and the San Joaquin, from Mount Shasta to Tehachepi, abound in vast sweeps of named and unnamed flowers, reveling in all

the colors of an axminster and perfuming the air with intermingled spices and sweets. The Alps, the Appenines, the Andes, the Sierra Nevada and the Mountains of the Moon are the habitats of flowers only surpassed in gorgeousness and circumference by the enchantresses of the Amazon and the Nile.

The symbolism of flowers is probably as old as the utterances of the first poet, but the first recorded traces of it are found in the land where poetry had its birth. It was the graceful fancy of the Greek which, uniting flowers with the events of every-day life, blended sentiment with the beauty of the flower world. The Romans also used flower symbols, though in a less degree. The red and white roses mark a bloody era in the history of England, as do the lily of the Bourbons and the violet of the greatest military genius of modern times.

John Thorpe

MOSES ANDY,

CHIEF DEPARTMENT OF PUBLICITY AND PROMOTION.

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CHAPTER III.

DEPARTMENT OF PUBLICITY AND PROMOTION.

The Object of Its Organization—A Unique and Highly Advantageous System of Free Advertising—How the World Has Been Informed of All the Details of the Commencement, Progress and Completion of the Gigantic Work—A Perfect System of Distribution of Information of Daily Happenings Conceived and Matchlessly Executed—Quarter of a Million Documents Mailed in a Single Week—Thirty Thousand Electrotypes of Buildings Sent Out—Ninety Thousand Lithographs Judiciously given Away—More than a Hundred Thousand Dollars Worth of Postage Stamps Used—Stupendous Advantages Derived Therefrom—Graphic Sketch of the Distinguished Department Commander.

IT HAS been conceded by the management and all others—and particularly during the early days and leading up to the opening of the Fair—no work connected with the Exposition has been more thoroughly done than the work assigned to the Department of Publicity and Promotion, and no effort made by any other department of the Fair is now bringing to the Exposition such great results. The name of the department indicates the object of its organization. It was to advertise the Fair and Maj. Moses P. Handy, the department chief, has done his work so thoroughly that there is not a civilized section of organized society in the world that has not learned of the Exposition and its purposes.

Since the organization of the department in December, 1890, there has been a constant and systematic effort to disseminate information concerning the Fair, and every avenue for spreading knowledge that presented itself has been utilized. Realizing the importance of having it thoroughly understood by the people of this country as well as the other nations of the globe just what the Fair was to accomplish, Director-General Davis was quick in seeing that some educational steps must be taken, and he suggested the organization of the Department of Publicity and Promotion, and aked that a practical newspaper man be placed in command. This idea received the approval of both the National Commission and the Chicago directors, and Maj. Handy was selected as the man to assume the responsible position. One thing that probably led Director-General Davis to propose the organization of this department was the unfriendly attitude of a portion of the foreign press, and another no doubt that the portion of the press that was friendly might be supplied with accurate information regarding the progress of the work.

This department is located on the second floor of the northwest pavilion of the Administration building. It is organized and managed on much the same pria-

ciple as a large daily paper—Maj. Handy's position corresponding to that of an editor-in-chief. He has a general supervision of the department and molds the policy to be followed.

The next man in authority is J. P. Holland, the chief clerk in the department. He is also chief of the Bureau of Information. This bureau supplies the demand for printed information and has received as many as 1,000 letters daily.

The editorial division is in charge of William M. Knox, an experienced newspaper man. He has the supervision of the preparation of all editorial matter sent out. He has two assistants, Col. Louis Ayme, who looks after the preparation of the matter for the French, Spanish, and Portugese publications, while Victor Sarner takes care of the German press. Mrs. Nancy H. Banks, who is a member of the Board of Lady Managers, has charge of the correspondence and prepares the special letters concerning the Exposition that are sent out by the department and also prepares the editorial news notes that have been largely used by the country press. The letters of Mrs. Banks has proven of great advantage in advertising the Fair.

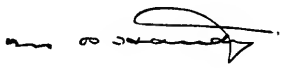
The mailing division, which is in charge of Frank Rigler, is one of the most important features of the department. The division is practically the same as the mailing department of a newspaper and has an exceedingly large list. The list contains, aside from a vast number of periodicals and newspapers, all the foreign Ministers and Commissioners, and a great number of persons who are even constantly writing for information about the Exposition now. In addition to this Mr. Rigler has furnished the press of the world with electrotype cuts of the principal buildings of the Fair. The advantage derived from this branch of the work has been great, as it enabled many newspapers to present to their readers pictures of the artistic and imposing structures that would not otherwise have been able to do so.

It is estimated that of the matter prepared by the department for the newspapers an average of 2,500 columns a month has been printed. The marked copies of publications received would indicate this. About as much again was used in the preparation of original matter. The greatest number of documents mailed any one week was 249,000, while the average number was 60,000. The number of electrotypes of buildings sent out each month was about 1,000, and they were accompanied with descriptions of the structures. There were also 85,000 lithographs giving bird's-eye views of Machinery and Horticultural Halls sent out, and $20,000 was spent for a lithographed bird's-eye view of the grounds and buildings. The postage alone on these reviews at times amounted to $1,000 a day.

How Major Handy arranged for accommodations for the press during the Fair is best told by himself, as follows:

Another work engaging the attention of the department of publicity and promotion at this time is the perfecting of arrangements for the accommodation and courteous treatment of representatives of the press during the exposition period. Our success in handling during the dedication week 2,500 newspaper men, the largest number ever assembled at one time, without any complaint from any

quarter, encourages us to believe that with the indorsement by the management of the department's policy, the great problem now before us will be solved with equal satisfaction alike to the exposition authorities and to the press. Newspaper headquarters will be in the administration building, at the very nerve center of the exposition. Three floors of the northwest pavilion have been reserved for this purpose. One for the department office, one for the local press, and one for press associations, foreign newspapers, and file rooms. It will be impossible to give separate rooms even to the leading newspapers of the country, but desk room will be abundant, typewriting machines will be at hand, and there will be separate rooms for those great newspapers of Chicago and other cities which have regular staffs on duty throughout the period of the exposition. In regard to the extension of courtesies to newspaper men, the department has recommended that a most liberal policy be adopted. This contemplates the issue of three kinds of tickets of free admission on account of the press; first a complimentary engraved invitation for journalists of distinction, and the editors of the great newspapers of the world; second, season or term tickets for men who come here to work; and third, single admissions for transient visitors. It is as much to the interest of the press as of the exposition that these privileges shall not be abused, and care therefore will be taken not to extend such courtesies to any persons not fully accredited and identified. Applications are now coming in in great quantities by every mail, and it is no small work to classify and arrange them, and decide upon the merits of each individual application.



[Moses Purnell Handy was born in the State of Missouri, but is virtually a Virginian, his father, a Presbyterian minister, having removed to the old Dominion while the son was yet an infant; and it was in the traditions of that State that the latter was reared and educated, and to her service that he gave his allegiance when the contest between the sections culminated in an appeal to arms. The horrors of conflict fell first upon the border states, particularly upon that portion of Virginia contiguous to the Potomac, in which the Handys were living; the father although a minister of the gospel and a man of peace, was an early victim to the ardor of his convictions and the ill-considered severity of an inexperienced Federal officer. He was arrested, thrown into a military prison; the home was wrecked; the family scattered; and at an early age young Moses was cast upon his own resources. At the age of seventeen he entered the Confederate army, was assigned to the staff of General Stevens with the rank of lieutenant, and served until the surrender of Lee put an end to the struggle. Out of the adventures which befell the youthful soldier during those years of exciting experience grew the first achievement in that line which was to become his profession. His first literary venture, consisting of a series of articles descriptive of incidents of foray and battle, appeared in the *Watchman*, then conducted by Dr. Deems. Having thus "seen himself in print," the path of future effort was irrevocably determined. The journalistic instinct was in full pulse

and vigor, only seeking a channel in which to vent itself. The boy now called on Dr. Converse, editor of the *Christian Observer*, then published at Richmond, and said he must have work. The field was not promising, but with characteristic perseverance he held on until at last (as to such resolute spirits it always does) the opportunity came. In the summer of 1867 Mr. Wilson, candidate for vice-president, made a canvass in Virginia and was announced to speak near Richmond. Young Handy went to the Richmond *Dispatch* with an offer to report the meeting "for five dollars and a railroad ticket." The offer was accepted, and the result was a report so superior to the usual work in that line as at once to fix the status of the writer. He was tendered and accepted a permanent situation on the *Dispatch*, learning the detail of the craft while engaged in the "all round" work which is the best education for a journalist, and was not long in mounting the higher rungs of the ladder. A little later Mr. Handy in connection with the exciting and tragic affair of the 'Virginius," which so nearly led to a war between this country and Spain, displayed an enterprise in obtaining intelligence and a brilliancy of method in transmitting it which elicited flattering comments. This episode led directly to his establishment with the then brilliant staff of the New York *Tribune*, and his career since has been one of unbroken success. He was subsequently, for a time, editor-in-chief of the once famous Richmond *Enquirer*, and imparted to that staid journal a vigor and spice which astonished the natives. In 1876 he was commissioner from Virginia to the Centennial Commission, and becoming attached to the "Quaker City" remained there during several years in which he managed the *Times*, and afterward held a prominent position on the *Press*, engaging at the same time in other and successful literary undertakings. As chief of Department of Publicity and Promotion, Major Handy has been urbanely accessible to all, and is to-day quite as energetic in attending to the wants of newspaper people and supplying them abundantly with passes as during the past thirty months he has been tireless in imposing upon them his millions of "reading matter," advertisements and pictures of the great Fair. The name of Moses P. Handy will long be known as that of the most distinguished promoter of the World's Columbian Exposition.

CHAPTER IV.

DEPARTMENT OF FOREIGN AFFAIRS.

The Selection of Hon. Walter Fearn as Chief—A Difficult Task at First—Mr. Fearn's Own Conceptions of the Duties Imposed Upon Him—None Doubted That the Gallant Diplomatist Was Equal to the Task—His Brilliant Achievements are Reflected in Every Portion of Jackson Park—Sketch of Walter Fearn—Soldier, Scholar, Traveler and Gentleman—One of the Most Elegant and Fascinating Americans at Home and Abroad.

PERHAPS the most unpromising affiliation at first was from distant countries, especially from a number whose governments have experienced occasional strained relations not long before. It was, therefore, and for other reasons, that Hon. Walter Fearn was selected as chief of the Department of Foreign Affairs, and much of the success that has resulted from the assemblage of more than half a hundred nations and exhibits of the mechanism and other handiwork must be attributed to the diplomatic knowledge and statesmanship of Walker Fearn. There is no more polished gentleman in the United States and few men of more rare attainments. Mr. Fearn's own conception of the demands upon him is best reflected in the following contribution:

The purpose of the Department of Foreign affairs of the Columbian Exposition has been, and is, to encourage and stimulate by the best and most effective methods the participation of foreign nations in the great international episode which is to mark the close of the nineteenth century.

To accomplish this a regular and systematic correspondence has been established, which now extends throughout the habitable globe, and embraces names distinguished in science, literature, art and commerce.

From the very first it was felt that the most difficult task was the removal of the strong and universal prejudice, often amounting to positive resentment, caused by our own exclusve fiscal policy. However, opinions may honestly differ as to the practical wisdom of protection or free trade, there can be but one touching the effect of a prohibitive policy upon a great international assemblage of artists and handicraftsmen, whose logical condition is an appeal, consciously or unconsciously, to what has been termed the inalienable right of every human being to buy and sell in the best market.

How far this cause has operated unfavorably it is of course impossible to say, but we may confidently predict, even now, a more complete, brilliant and instruct

ive display of the world's work than has ever before been gathered together—a display which may teach us how much we have to learn from the highly cultivated nations of the Old World, notwithstanding our own unrivaled progress in the acquisition of wealth and power.

While it has been our duty to lighten the labors of the Director General and assist our co-workers of the various departments in everything connected with the representation of foreign countries, it has also been our pleasing task to minister to the wants of the foreign ministers themselves, furnishing them with all requisite information and welcoming them with the cordiality shared by our whole community.

WALKER FEARN.

Walker Fearn was born in Huntsville, Ala., descending from a long line of Virgianian ancestors. His grandfather, John W. Walker, for whom he was named, was president of the convention which framed the constitution preceding Alabama's admission as a State of the Union. Walker Fearn entered Yale College in 1849 and graduated with honor three years later. Having read law with the late Justice Campbell, he was admitted to the bar on his twenty-fifth birthday and soon entered into active practice, but in 1853 began his varied experience in foreign lands by accepting a post of secretary of legation at Brussels, subsequently occupying the same position in Mexico. In 1861 he was one of the Confederate commissioners to the European powers, and returned to Charleston under the fire of the blockading fleet.

ntering the Southern army, Mr. Fearn was at first assigned to the staff of General Joseph E. Johnson, then commanding in Virginia. In 1863 he was again employed in the diplomatic service, first in Europe with Colonel L. Q. C. Lamar, afterward Justice of the Supreme Court of the United States, and then to Mexico with General William Preston. His final military service was as Adjutant General of the trans-Mississippi department under General Kirby Smith, and here the close of hostilities found him. After his marriage with Miss Hewitt, of Kentucky, in 1866, Mr. Fearn devoted himself to the practice of law in New Orleans, and held the professorship of modern languages in the University of Louisiana until 1884, when he visited Europe as Commissioner of the New Orleans exposition. He was appointed by President Cleveland Minister to Greece, Roumania and Servia and discharged the duties of his office with marked ability. By his experience and acquaintance abroad he was pre-eminently fitted for the management of the department which the Director General invited him, and his administration of the office has added to his already high reputation as a scholar and diplomat.

All the other chiefs at times during the progress of the work were more or less engaged in planning—to the best of their knowledge and ability—for those successes that crowned their efforts, descriptions of which will appear in other chapters.

CHAPTER V.

THE PRESS AND THE COLUMBIAN GUARD.

Splendid Service of the Columbian Guard—Cursed, Reviled and Knocked Down and Otherwise Abused. They Faithfully Perform Their Multiform Duties of Firemen and Police—They Extinguish 284 Fires and Save Machinery Building from Total Destruction—The Thanks of the Exposition are Due to Colonel Edmund Rice and the Columbian Guard—Also to John Bonfield and His Secret Service Police—The Fair Indebted to the Chicago Press More Than to All Other Things Combined.

ONE day in December, 1892, a small explosion took place somewhere on the grounds, and many cried, "What's that?" And the response came, "The Columbian Guard is making an arrest." At another time some scantling fell from the dome of the Administration Building and a man was killed—"but it was only a Columbian Guard," added the cold-blooded bearer of news. These anecdotes might be multiplied by a hundred, with the joke on the Columbian guard each time. But these same Columbian guards and their commander may exult, generally, over the character of their work. To be sure these guards have been abused and caricatured for the severe performance of their duty. They have been sworn at, reviled, and knocked down. They have not only arrested disreputable and suspicious persons, but they have even place department chiefs, directors and commissioners under arrest and trotted off their own commandant to headquarters for attempting to do what he, himself, had forbidden.

COL. EDMUND RICE.

The Columbian Guard is a military organization, under the control and direction of the Exposition company, having no connection with the Chicago police department. The Guard is under command of Col. Edmund Rice, U. S. Army, whose title in the Guard is commandant. The guards perform police and assist at fire-patrol duty inside the grounds, and, up to May 1, 1893, at the gates, and at one time numbered 2,500

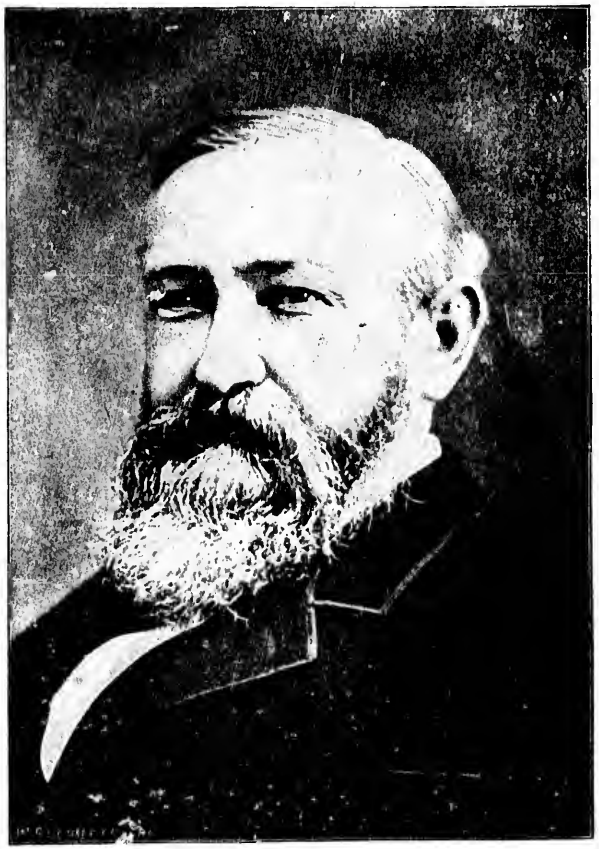
men. The secret service part of the command is under charge of John Bonfield. Colonel Rices started out with the idea of making the Columbian Guard a model organization of selected men, physically, mentally andmorally qualified for the work required of them. The following officers of the regular army were detailed to assist Colonel Rice in his duties, and were assigned as follows: Captain Fred A. Smith, Twelfth United States Infantry, as adjutant of the guard and commanding Company E and patrol system; First Lieutenant C. B. Hoppin, Second United States Cavalry, as quartermaster, and, First Lieutenant R. J. C. Irvine, Eleventh United States Infantry, commanding Company B. Each member of the Guard performs his eight hours of duty during the twenty-four. The two reliefs which do the work during the day have four hours on, then four hours off. The night relief has a continuous tour of eight hours. It is all so arranged that no two companies or reliefs are changing at the same hour, day or night. The uniform consists of a light blue cloth sack coat, ornamented with five rows of black braid across the front, each row terminating in a clover-leaf knot; black braid on the cuffs of the sleeves, with three small brass buttons on each cuff and five large ones down the front of the coat. The trousers are of a lighter blue than the coat and trimmed with two rows of flat black braid down each outside seam with a narrow red stripe between. The fatigue cap is made high for the addition of a black pompon on occasions of ceremony, which, together with the black braid shoulder knots and aiguilettes with belt and short sword, constitutes the full dress. The ornaments are a blazing sun, from the centre of which an eagle's head appears, worn on the left breast; a whistle for the purposes of signal and alarm; on the right breast a crossbow after the pattern of 1492, on which is the Guard's number, and on the cap a crossed gun and sword in the center of which is a miniature morion, or leather helmet, such as was in vogue during the time of Columbus.

Up to the opening day the Columbian Guard had extinguished or helped to extinguish 284 fires, and on one occasion saved Machinery Building from complete destruction—while the splendid conduct of the guards on the day of the destruction of the Cold Storage Building elicited general commendation. It is not improbable that the Guards performed their duties in a too severely civil way to suit many not at all acquainted with or used to military discipline, and forced insensibility of discriminating powers. But, all the same they have been faithful and vigilant from first to last, and the Exposition Co. has been greatly the gainer by their effective patrol ambulance and fire department work.

And last, but really first in importance, has been the general attitude of the Chicago press toward the Exposition. And, while, at times, the home papers have deemed it not improper to censure as well as to praise, they have never permitted an outsider to scorn or misrepresent without reprimand or rebuke. The Chicago press could have killed the Fair had it so determined. On the contrary, the Chicago papers, to a great extent, have made it. It is this press that has portrayed regularly by picture and text the commencement, progress and completion of the wonderful undertaking, and it is this press that all the historians of the Fair depend

upon, just as all the historians of the civil war depended upon the accounts of the newspaper correspondents sent from the seat of war. Therefore, the author declares himself indebted to the *Tribune, Herald, Inter-Ocean, Times, Record, News, Journal, Post, Mail,* and other dailies, and to the illustrated papers, for much that is best in this book.

COLUMBIAN COINS.



BENJAMIN HARRISON,

EX-PRESIDENT OF THE UNITED STATES.

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PART IV.

THE DEDICATORY EXERCISES.

CHAPTER I.

ARRIVAL OF DISTINGUISHED PEOPLE.

Vice-President Morton Acts for President Harrison—General Schofield and His Staff, the Cabinet Ministers, Justices of the Supreme Court, and Many Foreign Ambassadors come to Chicago—The City Filled with Soldiers, Senators and Congressmen—Nearly All the Governors of the States and Territories Arrive Accompanied by Their Military Staffs—Texas Sends Thirteen Handsome Young Women as Representatives of the Original Thirteen States—Bishop Fowler and Cardinal Gibbons Received by Other Church Dignitaries—Grand Dedication Ball at the Auditorium—Brilliant Appearance of State Street—Hotels and Boulevards Jammed with Strangers—Gorgeous Uniforms Everywhere.

EDNESDAY, Thursday and Friday, October 19, 20 and 21, 1892, constituted a gala period for the inhabitants of Chicago and the strangers within her gates. The latter had come to participate in the Dedicatory Exercises, which was to take place on the 21st, and not a small number had commenced to arrive even some days before the 19th. By the latter day great crowds of men in military uniform filled all the leading hotels, the admired of all admirers to an extent that even caused jealousy in the souls of groups of Governors who stood about and chatted among themselves on subjects political and otherwise. There was a military feeling in the air, particularly along Michigan Boulevard, which, in the vicinity of the hotels, was besprinkled with Majors and Colonels, foot privates, troopers, color-bearers, and Uncle Sam's marines and sailors.

The boulevard was crowded with passing throngs all day. Fully half of the pedestrians were lugging gripsacks, seeking in vain for rooms in the hotels. It was the same way in every locality that boasted a hotel. Hundreds of trains were run into the city, groaning under the weight of thousands of men and women who were bound to be in at the dedication, to see the great parades, and to take part in the approaching festivities.

The rush at the principal hotels was something awful. Men stood four to five deep at the counters waiting an opportunity to inscribe their names on the

registers. The distinguished parties that arrived were numerous. They were attractive, too, for they contained men whose names are known throughout all the broad land. The arrival of Gov. Boies was a great feature of the day, and Iowa was credited with putting on more airs than any other State until Gov. Bulkeley came in with his magnificent retinue from Connecticut. Among other prominent people who came in were Senators F. B. Stockbridge, John Sherman, and Calvin S. Brice. Then there were the diplomats and Cabinet officers and members of the Supreme Court of the United States, and the Governor of nearly every State and Territory in the Union.

Late in the afternoon Maj.-Gen. Schofield, Commander of the United States army, accompanied by Gen. John R. Brooke, Gen. Frank Wheaton, and Capt. A. G. C. Quay, came in and registered at the Leland, after a delay of seven hours on the train. Gov. Pattison came in with a big following early in the morning and went to the Victoria. Representatives of the Interior Parliament of Ontario were Nicholis Avery, John Dryden, G. H. Bigelow, and H. R. O'Connor.

M. Camille Krantz, the French Commissioner-General arrived early in the morning and went to the Palmer House, where he was shortly followed by Frederick Douglass, United States Judge W. A. Woods of Indianapolis, Senator Cullom, and Green B. Raum. Then there were great parties of leading society people and business men from Detroit, Duluth, the Twin Cities, St. Louis, New Orleans, Baltimore, New York, Boston, and great cities from all over the country. Mrs. Adlai E. Stevenson and daughter arrived at the Palmer House in the afternoon, and Congressmen and Senators pulled into town all day.

Texas sent thirteen handsome young women to represent the original States. They were accompanied by four married couples in the capacity of chaperons, and were given excellent quarters at the Palmer. They were selected by ballot by citizens of Texas at the instance of the Fort Worth *Gazette*, which offered to send the thirteen most popular daughters of the State to the dedicatory exercises. It was a newspaper balloting enterprise, and naturally enough the majority of the thirteen fairest daughters of Texas were selected from the belles of Fort Worth.

Vice-President Morton, who attended in place of President Harrison (the latter having been summoned to the bed-side of his invalid wife), was the observed of all observers, and was the recipient of marked courtesies from many sources.

Bishop Fowler, of the Methodist Episcopal Church, and one of the most delightful men in the country, was met at the depot by a host of friends.

Cardinal Gibbons, of Baltimore, Archbishop Satolli, of Rome, the Papal Envoy to the Columbian Exposition; Mgr. O'Connell, the President of the American College at Rome; Bishop John J. Kean, Archbishop Ireland, Bishop Kain, and a number of other high churchmen were met at South Chicago by representatives of the World's Fair and Columbus Club.

Not every one had an invitation to attend the grand Dedication Ball at the Auditorium that night, but no one needed an invitation to witness the splendors of State street. The concourse of people that turned out on the great thoroughfare was unprecedented.

To say that State street was thronged does not convey an idea of the situation. On State and Madison streets, on all four corners, there was such a mass of people standing that a person could scarcely get through. From South Water to Polk street it was one dense throng of people. Laboring men with their wives and little children availed themselves of the evening time to see the decorations. Young women who could not find escorts did not stay at home on that account. They came in trios and quartets, and every young man who had any public spirit took his best girl for a walk down State street.

All classes of Chicagoans were represented. One could hear expressions of admiration for the decorations in all the languages of Europe and the Orient, from Norwegian to Chinese. The cosmopolitian aspect of the city was as prominent as the Stars and Stripes in the decorations.

There were soldier boys in the streets representing dozens of regiments and various military organizations. Their uniforms galore lent a picturesqueness to the crowds. "Regulars," Cleveland Grays, Continental National Guardsmen, from Hartford, Conn.; cadets in gray; New York cavalrymen; marines and guardsmen from nearly every state were as thick as hucksters at a county fair.

The street had all the brilliancy of a scene from the Arabian Nights. Electric lights of every color lent a rainbow line to the fronts of the business buildings. The decorations in the glare of the lights were almost bewildering in their gayety. Little children in large numbers clapped their hands and cried out in delight. "O! my!" No one minded the density of the crowd or failed to enjoy the sights, for there was something to see on every hand. Every shop window had its attractions and every shopkeeper vied with his neighbor in a lavish display of incandescent electric lights.

LEVI P. MORTON,

EX-VICE-PRESIDENT OF THE UNITED STATES.

CHAPTER II.

GREAT PARADE OF TRADESMEN.

Eighty-Thousand Men in Line—More than [illegible] Hundred Bands of Music—Half a Million P[illegible] Witness the Grandest Civic Parade E[illegible] in any Country—Vice-President Morton R[illegible] the Moving Masses—Great Gather[illegible] Distinguished People—Men of Peace resplendent in Habiliments of War—Flashing unif[illegible]n [illegible]quent Medals of Honor—All Professions and Al[illegible] Trades Represented—Fifteen Hundred A[illegible] Banners Borne Proudly by Naturalized Citizens of All Nationalities—Generals Miles and Schofield Consider the Parade a Wonderful Success—Masses of School Children Attired in the National Colors Portray a Beautiful Design—Great Deference Paid to the Representative of the Nation.

VERY ONE hoped for a pleasant day for the great civic parade on Thursday, the 20th, and none were disappointed. Immense preparations had been made by the 80,000 marchers and the 500,000 other participants. The city of Chicago had been decked out as never before, as scarcely a house could be seen that had not been elaborately or otherwise decorated. Flags, bunting and transparencies were to be seen by the hundreds of thousands. A platform had been erected over the northern steps of the post-office, and here Vice-President Morton, in the presence of more than a thousand dignitaries, including cabinet ministers, Justices of the Supreme Court, Senators and Members of Congress, Governors of States, Foreign Ambassadors and other distinguished persons, reviewed the great parade. On the eastern and western steps more than two thousand little girls represented the States, and so arranged themselves as to look at either place like a great American flag, which was novel, beautiful, artistic and inspiriting.

The procession will always be remembered by those who saw it as the greatest of its kind ever seen, and all will remember that it passed off in perfect and satisfactory order. There were 116 bands in line by actual count, and every trade and calling in the land was represented. As some one has written: "Great and cosmopolitan Chicago accomplished its greatest feat in the way of celebration when an army of 80,000 men passed a given point in two hours and forty-five minutes, which was the exact time taken by the civic parade in passing in review before the Vice-President of the United States. Half a million of people witnessed this grand, record-breaking event, and every one of the number seemed ambitious to view it from some point on Adams Street close to the reviewing stand at the north end of the Government Building until they were scattered by the well-organized efforts

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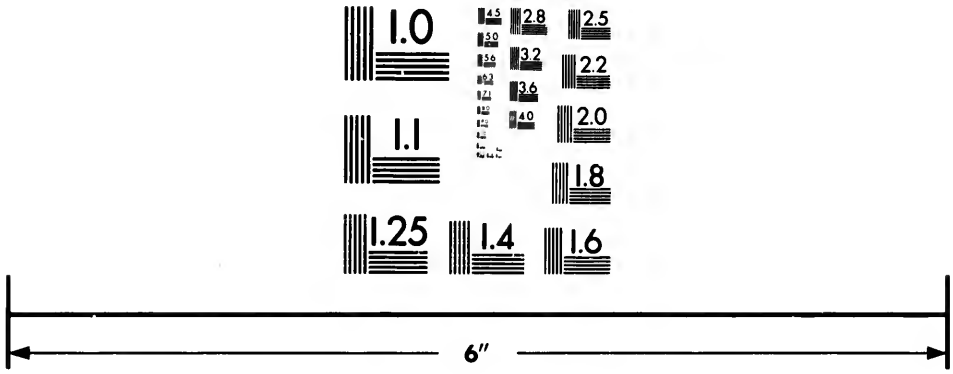

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of the city police all along the line over which the great procession marched." The people ventured out in the cold, frosty morning early as the milkmen and wended their way down-town to points of vantage, and most of them sought positions near the reviewing stand, which by nine o'clock was already half filled with the fortunate holders of tickets of admission thereto. The several school children who, attired in red, white, and blue, formed a living picture of "Old Glory," were escorted to their positions on the grand stand at the east and west sides of the Government Building, where, as living stars and stripes, they sang the Nation's song in sweet, young voices. There was music in the air from bands leading participants in the parade to the places of formation. There were exciting incidents enough in the great crowd that blockaded Adams, Dearborn and Clark Streets, to relieve the waiting reviewers of any impatience. They had a long wait, indeed.

Vice-President Morton was the first of the official party to arrive. He was immediately escorted to the middle of the reviewing stand. He was recognized at once, and the people on the reviewing stand arose and paid him deference heartily, while the crowd on the streets for the only time during the day got beyond the restraint of the police, and made a rush to pay obeisance and respect to the second man of the land, appearing as the chief official representative of the government on account of the affliction which detained President Harrison in Washington. In the great procession, which was soon afterward in motion, were Teutons and Sclavs and Frenchmen, and their hearts and their feet beat time to the same music—that of "The Star-Spangled Banner." Orangemen walked in that procession, and for the first time in the history of 300 years the Irish Celts walked with them in a common cause. Hereditary foes were brothers, and for once the descendants of warring European clans marched under the same flag. All were Americans, all were freemen, and in the pride of sovereignty as freemen the old hatreds of the old days were cast out of their hearts.

It was not strange that many eyes that saw the light under different heavens were suffused in watching the bright flag which multiplied itself in a million forms around and above them. Few colors were displayed to remind that host of naturalized citizens—who, it is fair to presume, were in the majority—of the countries they had left to find a refuge and a home in the prairie of the West.

All the participants in the parade marched proudly and cheerfully. Not all by any means had flashing uniforms; not all wore medals eloquent of their valor; nor did the habiliments of all betoken the possession of luxury in a material sense; but all looked happy in being permitted to profess in the most public manner their American citizenship. There were societies, the professed object of which is to oppose other organizations of alien connections, but they did not fall on one another.

The municipal colors were displayed next to the national ones, for next to the Union the object dearest to that great army of marchers was the city of their residence. All professions, all trades, all occupations were represented in an American parade.

After the parade had passed the populace immediately took possession of

Adams street, crowding, in fact almost fighting, to get near the Vice-President and other National officials. On the occasion of the unveiling of the Grant Monument at Lincoln Park a year before, Gen. Horace Porter, of New York, who was on Gen. Grant's staff, said that the crowd that was gathered in Lincoln Park that day was the largest he had ever seen. But the Columbian parade and the crowd on Adams street was a mass-meeting compared with the crowd of a year before. Adams street from the bridge to the lake was absolutely packed with humanity. It was a congested sea of faces, and the crowding was as heavy on the side streets leading from Adams, but after the reviewing party left the stand the crowd dispersed in good order, considering all things.

The parade meant a great deal to the intelligent people who witnessed it from the reviewing stand and other points. It was a union of men adverse in opinion, in politics, religion and all other sentiments. or opinions other than those of patriotism. Citizens of foreign birth contributed greatly to its success. They carried more red, white and blue flags, and their bands played only the songs of loyalty. The greatest deference received by the man representing the Nation was paid by these men. They dipped their colors lowest and observed the Vice-President most attentively. Indeed, the members of the best disciplined of their societies forgot their drilling and turned their heads and kept their eyes on the Vice-President until they were able to see him no longer. Altogether they gave a marvelous exhibition of their loyalty to the country which they had sought for their own betterment. That was one of the lessons of the day.

Another thing wonderful about the parade was the rapidity with which it moved. Gen. Miles said it broke all records, and Maj.-Gen. Schofield, commanding the United States forces, said that the passage of an army of 80,000 men in review was a wonder when it was considered that it was all done in less than three hours and in the face of some unavoidable delays. The bearing of every man in line was soldierly, although all moved in columns of twenty. Nothing was lacking. Every one of the more than 150 musical organizations in line played good music. Every one of the 1,500 banners was borne proudly and in point of numbers the parade exceeded any parade intended to be of a civic nature ever held in America.

MILITARY PARADE, JACKSON PARK, OCTOBER 21, 1892.

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CHAPTER III.

GRAND MILITARY PROCESSION AND REVIEW.

The 21st of October, 1892, a Day Long to be Remembered—Grand Review at Washington Park in the Presence of Two Hundred Thousand People—The Marine Band of Washington and the Mexican Band of the City of Mexico Make Music—Thirty-eight other Bands and Fifteen Thousand Soldiers in the Procession—Vice-President Morton, Director-General Davis, Presidents Palmer and Higinbotham, Ex-President Hayes, the Justices of the United States Supreme Court, General Schofield and Staff and Governors of Thirty-one States in Carriages—Carriages also Contained Henry Watterson, Chauncey M. Depew, Cardinal Gibbons, Bishop Fowler, National Commissioners, Lady Managers, Foreign Commissioners, Director, Chiefs of Departments—Members of City Council and Others—Tremendous Enthusiasm all along the Line from Washington Park to the Manufactures Building—All the Governors and All the Soldier Boys Cheered—Flower, Russell, Boies and McKinley Vociferously Saluted—The Jolly Author of Peck's Bad Boy an Especial Favorite.

RIDAY, the 21st October, 1892, the day upon which the grand military procession and review took place, and also the dedicatory exercises at Jackson Park, will never be forgotten by any participant. The weather was simply superb. It was sunshiny and cripsy and brought out hundreds of thousands of people. There were 15,000 soldiers in line and distinguished men and women from all parts of the Union. Perhaps the stands overlooking the Midway Plaisance were the best points of observation. The grand review had been carried out according to program, and at 11:15 a cavalry troop turned from the green of Washington Park to the gray of Midway Plaisance. It was the advance guard for the great procession toward the Manufactures Building. On both sides of the Midway Plaisance there was a wall of humanity so deep that many who stood at the outer edge could see nothing but the banners and the flags waving above the marching men, and get an occasional glimpse of the baton of a drum major as it whirled through the air glistening under the rays of a noonday sun. Double lines of soldiers kept the spectators back. The advance column passed on without hindrance, and crossing the viaduct thrown across the tracks of the Illinois Central railroad coming down the incline at an easy canter, crossed the dividing line and entered the grounds to be dedicated to the World's Columbian Exposition.

As the horses' hoofs beat a tattoo on the wooden pavement at the entrance of the park a shout went up that echoed from the Woman's Building to the Manu-

factures, and the waiting multitude inside the latter building knew the parade was entering the grounds.

Every step to the Woman's Building was filled with crowds waiting to see the procession pass. The line of march inside the grounds was lined with a good natured crowd, kept in easy check by the Columbian Guards. From the top of the Woman's Building many friends of lady managers viewed the procession and waved handkerchiefs to those who passed in review.

Gen. Nelson A. Miles, in the brilliant uniform of his rank, rode by on a big black charger, followed by his full staff; then a detachment of cavalry, then one of infantry, and from that time on until the carriages of the Joint Committee on Ceremonies came in sight there passed company after company of state troops, punctuated by regimental bands playing lively airs. An exceptionally well drilled company of militia or a drum major in bearskin was enough to set the crowd cheering.

The 5th Regiment Missouri National Guard, from Kansas City, received liberal applause, and the members of the bicycle corps, No. 21, mounted on new pneumatic safeties, were received with noisy approbation. Jerry Rusk's Own, the Rusk Guards, were vociferously cheered.

Director-General Davis was the recipient of a tremendous round of applause, but when Vice-President Morton's carriage reached the top of the viaduct and started on the descent a cheer when up that grew and broadened to a storm as he entered the gates of the Exposition grounds. His hat was in his hand all the time, and as the carriage turned the corner of the Woman's Building the cheering followed him in an unbroken line.

Chief Justice Fuller, dignified and gray, met with a warm reception from his fellow-townsmen. Carter Harrison, looking pale from the confinement of the sick-room, with his broken arm in a red, white and blue sling, was driven through the grounds by his daughter sitting in the high front seat of a dog cart.

Mrs. Palmer was received like a princess, and smiled and bowed to right and left as her carriage passed. Chauncey M. Depew, Harry Watterson and the other orators were recognized at the top of the viaduct, and were cheered continuously as they passed.

The first of the procession passed inside the grounds at 11:15 o'clock; when the last carriage and last soldier had passed by it was 2:35 o'clock. It was 3 o'clock when the last carriage had discharged its load at the east door of the Manufactures Building.

Gov. Fifer, with the twenty-one members of his state, was greeted with uproarious applause. Gov. McKinley was received by cheers and the crowed called out "Buckeyes." As Gen. Bulkley rode past, the boys recognizing the Connecticut derivation, shouted "Nutmegs, nutmegs." The Wisconsins were called "Badgers," and the old-time names for the various states were applied in a laughable manner. Gov. Russell, of Massachusetts, mounted on a pracing charger, his smoothly shaven face looking unusually young to be traveling with such an illustrious company of eminent men, was greeted by thunders of applause, a tribute alike to his youth and his ability.

Whitelaw Reid, who rode in a carriage with Gov. Fifer, as his guest, was given a pleasant informal reception all along the line, and during a brief stoppage in the march Congressman Durborow, who was in charge of the party of Congressional visitors, brought the Congressmen together in a sort of chatty exchange of gossip. Among those who were under his chaperonage were Congressmen Houk of Ohio, Greenleaf of New York, Neal of Ohio, Outhwaite of Ohio, Haynes of Ohio, Hayes of Iowa, Wilson of Missouri, O'Neil of Missouri, Huff of Pennsylvania, Riffe of Pennsylvania, Lane of Illinois, Scott of Illinois, Hitt of Illinois, Hopkins of Illinois, Dingley of Maine, McClennan of Indiana, Stewart of Illinois, and Payson of Illinois. There were also Senators Sherman, Brice, Washburne, Cullom and Sawyer.

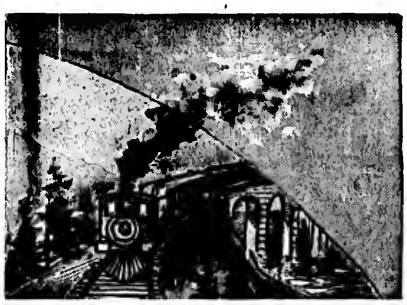
Delegations from the Southern States were uproariously cheered and they responded to tributes by dipping flags and doffing hats. When California's beautiful banner moved between the crowded lines it was hailed with loud acclaim. The Californians, appreciating the honor, responded with waving flags. Govs. Flower of New York and Pattison of Pennsylvania were roundly applauded. This applause was not by Illinoisans; it was an outburst of national enthusiasm, for the crowd was a national one. The cheers came from the lungs of Californians, Texans, Louisianians, and visitors from all other states.

At this point there blossomed into view a pretty little episode. Thirty little eight-year-old girls, dressed in white, had in some manner fallen into the line of march and came stepping proudly down between the great banks of the populace, carrying at their head a huge pansy, six feet across, on whieh was inscribed: "The Chicago Pansy society, Union, Culture and Peace." They carried American flags. They were cheered on all sides and had kisses thrown them from appreciative lips. They were quickly, however, led out of the line of march.

As the Board of Lady Managers of the World's Fair came in sight handkerchiefs fluttered and hats were swung and a continuous roll of cheers greeted them. Gov. Boies, of Iowa, was heartily cheered, and as the Iowa Governor's guard came swinging along with measured tread the crowd started "Tramp, Tramp, Tramp, the Boys are Marching," and the grand old melody rang out from a hundred thousand voices. Gov. Peck, of Wisconsin, was a great favorite with the crowd. The boys cheered him for the funny things he has written, the Democrats because they liked him, and everybody else because he was a sunshinemaker. The thirteen women who represented the thirteen original states were vociferously cheered. The Connecticut Footguards, with their gorgeous continental uniforms of red coats, yellow trousers and black buskins, were applauded till the trees shook. There were four regiments from Indiana, three from Illinois, two from Ohio, one from Missouri, one each from Michigan, Iowa, Wisconsin and Minnesota.

The United States Marine band of Washington, was a favorite with the multitude. The Mexican band was greeted by repeated cheers. The beautiful marching by Troop K of the Fifth Cavalry was loudly applauded. The Ninth Colored Cavalry, which passed on a gallop, was also loudly cheered. The first and second Regiments of the Illinois guardsmen were tumultuously greeted. As the Indiana

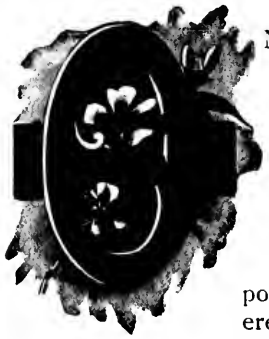
and Wisconsin soldiers swept along the wake of the Illinois boys their marching was much admired. An officer of the reviewing party said: "The earth resounds to the measured tread of our citizen soldiery; the country has reason to be proud of them; they are the bulwark of the nation." The martial bearing of the Minnesota troops was such that Adj.-Gen. Reece of Illinois, said as they passed the reviewing stand: "They are a magnificent body of soldiers. Minnesota can well be proud of them." On the whole, it was a grand affair throughout.



CHAPTER IV.

COMMENCEMENT OF THE EXERCISES.

One Hundred Thousand People in Attendance—Grand Orchestra of Two Hundred Pieces and a Chorus of Five Thousand Voices under Theodore Thomas—Bishop Fowler's Prayer and the Opening Address of the Director-General—Hempstead Washburne's Brilliant Remarks—Reading and Singing the Dedicatory Ode.



N the afternoon of the 21st of October, 1892, where only a few years before a solitary Indian was monarch of all he surveyed, there transpired an event which will forever perpetuate the name and fame of Columbus. This event will always be known as the Dedicatory Exercises of the World's Columbian Exposition, and took place in the unfinished Manufactures Building in the presence of one hundred thousand people. There were exercises, or there had been for a week or more before, in various portions of the globe, all in honor of the man who discovered America, conspicuously in Italy and Spain, and at various points throughout our own country.

When Vice-President Morton, representing the dignity of the United States, supported on his right and left, respectively, by President Palmer and Director General Davis, marched down the center aisle, between the long columns of distinguished men on the speakers' stand, to take his position facing that immense audience, the great iron girders supporting the roof of the Manufactures building were made to tremble by the cheer that met him. Instantly 100,000 handkerchiefs were in the air, waving such a salute as no man ever received before.

After the Vice-President had bowed his acknowledgements of the demonstration the Director General, at exactly 1:30 o'clock, touched the electric signal, Professor Thomas waved his baton, and with one burst of melody the orchestra sounded the opening strain of the "Columbian March." The effect was instantaneous and wonderful. A hush fell upon the multitude, and all through the great auditorium penetrated the harmony of Professor Paine's composition.

Then 5,000 voices in one tremendous chorus swelled the volume of the music. For five minutes the audience sat as though entranced. And many seconds had elapsed after the baton had been given its final wave before the burst of applause came.

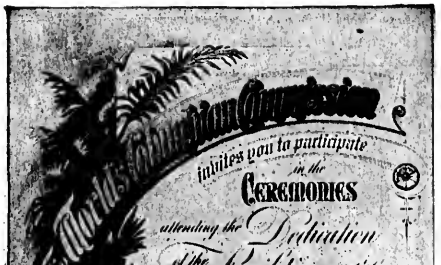
It had been useless to attempt to quiet that throng until it had worked off

the enthusiasm acquired while the "Columbian March" was being produced. But there is an end to all things, and so when Bishop Charles H. Fowler stood forth and waved his hands in an appeal for peace the hush that fell was as impressive as had been the applause. And then the eloquent divine with head bowed, his voice wonderfully loud and clear, uttered a fervent prayer.

Upon the conclusion of Bishop Fowler's prayer, Director-General Davis read the opening address as follows:

LADIES AND GENTLEMEN: By virtue of my official position it is my pleasurable duty to present the noted personages who, at this hour, in their several functions, are to contribute to the exercises with which we here dedicate the grounds and buildings of the World's Columbian Exposition.

In a presence so vast, on an occasion so pre-eminent in the progress of universal affairs, I am moved by emotions that can sweep a human heart but once in life. Awe overmasters inspiration, and both are lost in gratitude that I am permitted to inaugurate these ceremonies. The citizens of our common country may be pardoned the pride and satisfaction with which we study the historic steps by which our people have been led to their present exalted position. Of the great nations of the world, the United States is the youngest; our resources are equal to those of any other nation. Our sixty millions of people are among the most intelligent, cultured, happy and prosperous of mankind. But what we are and what we possess as a nation is not ours by purchase nor by conquest, but by virtue of the rich heritage that was spread out beneath the sun and stars, beneath the storms and rains and dews, beneath the frosts and snows, ages before a David, a Homer, or a Virgil sang, or before Italy's humble and immortal son had dreamed his dream of discovery. This rich heritage is ours, not by our own might, not even by our own discovery, but ours by the gift of the Infinite. It is fitting that, on the threshold of another century, we reverently pause in the presence of the world, and with confession and supplication, with thanksgiving and devotedness, with praise and adoration acknowledge our dependence on the Creator of the universe, the God of nations, the Father of mankind.



INVITATION TO THE DEDICATORY CEREMONIES.

Nature has given us a virgin soil of incomparable richness and variety. Our climate is so diversified that all the fruits of tree and vine ripen under our autumnal

skies. The great seas that form our boundaries, and with their ebb and flow bathe our shores, are rich with all the treasures of the deep. The granite vaults of our mountain chains are stored with untold mineral wealth. In the prodigality of nature, bountiful provision has been made for our multiplying people, and in times of emergency, from our great abundance we may succor and comfort the distressed and afflicted of other lands. A single century has placed this people side by side with the oldest and most advanced nations of the world—nations with a history of a thousand years.

But in the midst of our rejoicing no American citizen should forget our national starting point, and the quality of the manhood on which was laid the very foundation of our government. Our fathers were born under foreign flags. The very best brain and nerve, and muscle, and conscience of the older governments found their way to this western continent. Our ancestors had the map of the world before them; what wonder that they chose this land for their descendants! Over the very cradle of our national infancy stood the spirit and form of the completed civilization of other lands, and the birth-cries of the Republic rang out over the world with a voice as strong as a giant of a thousand years. From the morning of our history the subjects of all nations have flocked to our shores and have entered into our national life and joined in the upbuilding of our institutions. They have spaded and planted, they have sown and gathered, they have wrought and builded, and to-day, everywhere over all this land, may be seen the products and results of this toil, constituting our national prosperity, promoting our national growth. To all such the doors of the nation are ever open.

The World's Columbian Exposition is the natural outgrowth of this nation's place in history. Our continent, discovered by Christopher Columbus, whose spirits were revived as his cause was espoused by the generous-hearted Queen of Spain, has throughout all the years from that time to this, been a haven to all who saw here the promise of requited toil, of liberty and of peace.

The ceaseless, resistless march of civilization, westward, ever westward, has reached and passed the great lakes of North America, and has founded on their farthest shore the greatest city of modern times. Chicago, the peerless, has been selected for the great celebration which to-day gives new fire to progress, and sheds its light upon ages yet to come. Established in the heart of this continent, her pulse throbs with the quickening current of our national life. And that this city was selected as the scene of this great commemorative festival was the natural outgrowth of predestined events. Here all nations are to meet in peaceful, laudable emulation on the fields of art, science and industry, on the fields of research, invention, and scholarship, and to learn the universal value of the discovery we commemorate; to learn, as could be learned in no other way, the nearness of man to man, the Fatherhood of God and the brotherhood of the human race.

This, ladies and gentlemen, is the exalted purpose of the World's Columbian Exposition. May it be fruitful of its aim, and of peace forever to all the nations of the earth.

At the conclusion of the address of the Director-General Hempstead Washburne, then Mayor of Chicago, made the following brilliant remarks:

MR. PRESIDENT, REPRESENTATIVES OF FOREIGN GOVERNMENTS, LADIES AND GENTLEMEN: This day is dedicated by the American people to one whose name is indissolubly linked with that of our continent. This day shall add new glories to him whose prophetic vision beheld in the stars which guided his audacious voyage a new world and a new hope for the peoples of the earth.

The four centuries passing in review have witnessed the settlement of a newly-discovered continent, the founding of many nations, and the establishment in this country of more than sixty millios of people whose wonderful material prosperity, high intelligence, political institutions and glorious history have excited the interest and compelled the admiration of the civilized world.

These centuries have evolved the liberty loving American people who are gathered here to-day. We have with us the pioneer bearing in his person the freedom of his western home—the aging veteran, whom all nations honor, without whose valor government, liberty and patriotism would be but idle words. We have with us builders of cities, founders of states, dwellers in the forests, tillers of the soil, the mechanic and the artisan, and noble women, daughters of the republic, not less in patriotism and deserved esteem than those who seem to play the larger part in building up a state.

There are gathered here our President and stately Senate, our grave and learned Judges, our Congress and our States, that all mankind may know this is a nation's holiday and a people's tribute to him whose dauntless courage and unwavering faith impelled him to traverse undismayed the unsailed waste of waters, and whose first prayer upon a waiting continent was saluted on its course by that banner which knows no creed, no faith, no nation—that ensign which has represented peace, progress and humanity for nineteen hundred years—the holy banner of the cross.

Those foreign nations which have contributed so much to our growth will here learn wherein our strength lies—that it is not in standing armies—not in heredity or birth—not even in our fertile valleys—not in our commerce nor our wealth—but that we have built and are building upon the everlasting rock of individual character and intelligence, seeking to secure an education for every man, woman and child over whom floats the stars and stripes, that emblem which signifies our government and our people.

That flag guards to-day 21,500,000 school children of a country not yet four centuries old and who outnumber nearly four times the population of Spain in 1492.

This is our hope in the future—the anchor of the Republic—and a rainbow of promise for the centuries yet to come.

As a mark of public gratitude it was decided to carry down into history through this celebration the appreciation of this people for him before whose name we all bow to-day.

You, sirs, who are the chosen representatives of our people—you into whose keeping we entrust our property and our rights—you whose every act becomes a

link in that long chain of history which spans four hundred years without a break and whose every link signifies a struggle and victory for man—you who present that last and most perfect experiment of human government have by your official acts honored this young city with your choice as the most fitting place to mark this country's dawn.

She accepts the sacred trust with rivalry toward none and fellowship for all. She stands ready to fulfill the pledges she has made. She needs no orator to speak her merits, no poet to sing her glories. She typifies the civilization of this continent and this age; she has no hoary locks, no crumbling ruins; the gray-haired sire who saw her birth to-day holds on high his prattling grandchild to see the nations of the earth within her gates.

Over the very spot whereon we stand, within the memory of men still young, the wild fowl winged their migratory flight.

Less than a century ago the site of this young city was unknown; to-day a million and a half people support her honor, enterprise and thrift. Her annual commerce of one billion and a half tells the eloquent story of her material greatness. Her liberty to all nations and all creeds is boundless, broad as humanity and high as the dome of heaven. "Rule Britannia," the "Marseillaise," "Die Wacht am Rhein," and every folksong of the older world has drifted over the Atlantic's stormy waves, and as each echo, growing fainter with advancing leagues, has reached this spot it has been merged into that one grand chorus, "My Country, 'tis of Thee, Sweet Land of Liberty, of Thee I Sing."

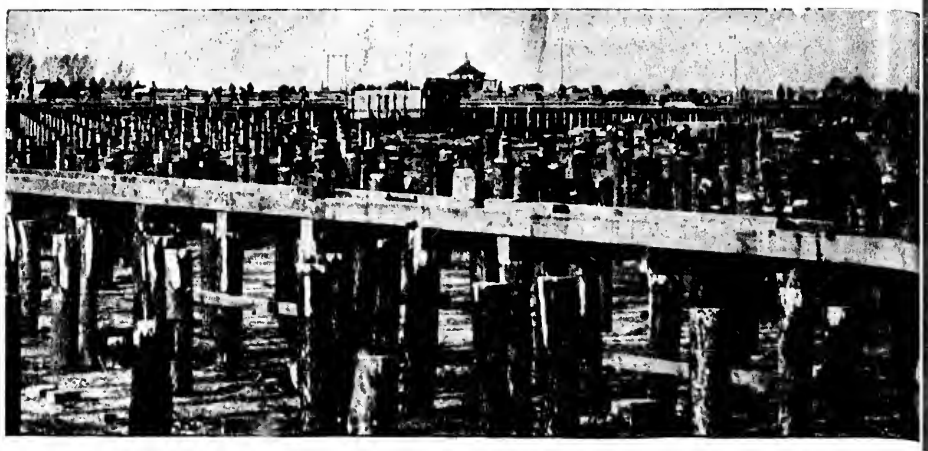
This, sirs, is the American city of your choice; her gates are open, her people at your service. To you and those you represent we offer greeting, hospitality and love.

To the Old World, whose representatives grace this occasion, whose governments are in full accord with this enterprise so full of meaning to them and to us, to that old world whose children braved unruly seas and treacherous storms to found a new state in an unknown land, we greeting, too, as children greet a parent in some new home.

We are proud of its ancestry, for it is our own. We glory in its history, for it was our ancestral blood which inscribed its rolls of honor; and if to-day these distinguished men of more distinguished lands behold any spirit, thing or ambition which excites their praise, it is but the outcropping of the Roman courage on a new continent, in a later age.

Welcome to you men of older civilizations to this young city whose most ancient landmark was built within the span of a present life. Our hospitalities and our welcome we now extend without reserve, without regard to nationality, creed or race.

Then was read and sung the dedicatory ode, written at the order of the Exposition managers by Miss Harriet Stone Monroe, of Chicago.



FLOOR OF MANUFACTURES AND LIBERAL ARTS BUILDING.

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CHAPTER V.

DEDICATION OF THE BUILDINGS.

President Higinbotham Bestows the Commemoratory Medals—The President of the Commission Receives the Buildings from the President of the Exposition and the Latter Presents Them to the Vice-President of the United States for Dedication—Mr. Morton Dedicates Them to the World's Progress in Art, Science, Agriculture and Manufactures—"God Save the United States of America."

AT the sixth number in the Dedicatory Programme, President Higinbotham, calling the Director of Works and the artists of the Exposition into a conspicuous position, made to them the following address, at the same time bestowing the commemoratory medals: MR. BURNHAM AND GENTLEMEN: It becomes my agreeable duty on behalf of the Board of Directors of the World's Columbian Exposition, to receive from you these buildings, which represent your thought, skill and labor as master artists of construction. It is difficult to command language fully adequate to express our satisfaction with your achievements. We have observed with admiration the rapid development of your plans, until there stand before us today structures that represent the ripest wisdom of the ages.

Never before have men brought to their task greater knowledge, higher aims or more resolute purpose. Never before have such magnificent fruits been the result of thought and toil. The earth and all it contains have been subservient to your will. You have pursued your work loyally, heroically and with an unselfish devotion that commands the applause of the world. Your country and the nations of the earth will join us in congratulating you upon the splendid issue of your plans and undertakings.

We accept these buildings from you, exulting in the belief that these beauful structures furnish proof to the world that, with all our material growth and prosperity since the Columbian discovery of America, we have not neglected those civilizing arts which minister to a people's refinement, and become the chief glory of a nation.

> "Peace hath her victories,
> No less renowned than war."

In this Exposition, one of the adorning victories of our age of peace, you take

conspicuous part, and the work accomplished reflects, and will continue to reflect, honor alike upon yourselves and upon your country.

In recognition of your faithful and efficient services, and in order to more substantially than by mere words the successful termination of your great work as master artists of construction, the Board of Directors have issued this medal, which I have the honor to present to you. A simple token it is, which finds its real and abiding value, not in its intrinsic worth, but rather in the high merit which receives and the grateful appreciation which bestows it.

Turning from the Director of Works and the artists, with President Palmer rising, the President of the Exposition continued as follows:

But yesterday these surrounding acres composed a dismal morass—a resting place for the wild fowls in their migratory flight. Today they stand transformed by art and science into a beauty and grandeur unrivaled by any other spot on earth.

Herein we behold a miniature representation of that marvelous development and that unprecedented growth of national greatness, which, since the day of Columbus, have characterized the history of this New World.

The idle boy, strolling along the shore of this inland sea, carelessly threw a pebble into the blue waters. From that center of agitation there spread the circling wave, which fainter and still fainter grew, until lost at last in the far distant calm. Not so did the great thought come and vanish which has culminated in these preparations for the World's Columbian Exposition. It was not the suggestive impulse of any single brain or locality that originated this noble enterprise. From many minds and many localities there seemed to come, spontaneously and in unison, the suggestions for a Columbian celebration. Those individual and local sentiments did not die out like the waves, but in an inverse ratio grew more and more powerful, until they mingled and culminated in the grand and universal resolve of the American people, "It shall be done."

Today, sir, on behalf of the Board of Directors, representing the citizens of Chicago, to me has been assigned the pleasant duty of presenting to the World's Columbian Commission these buildings, for dedication to the uses of the World's Columbiam Exposition, in celebration of the four hundredth anniversary of the discovery of America.

In viewing the work thus far accomplished, we gladly acknowledge ourselves debtors to the patriotic pride of our fellow citizens throughout the land; to the kindly interest manifested by the President of the United States; to the genorosity of the Congress; to the hearty sympaty of the civilized nations of the earth and to the efficient co-operation of the honorable commission which you represent.

The citizens of Chicago have cherished the ambition to furnish the facilities for the Exposition, which, in character, should assume a national and international importance. They entertain the pleasing hope that they have not come short of the nation's demand and of the world's expectation. Permit us, sir, to believe that it was not a narrow ambition, born of local pride and selfishness, that asked for the location of the World's Columbian Exposition at Chicago. Rather let it justly be said that it was in view of the fact that 25,000,000 of people live within a

radius of 500 miles of Chicago, and that standing here, so near the center of population, Chicago would be accessible to a larger number of American people, who are the creators of our wealth and prosperity, than would any other city on the continent. The citizens of Chicago have been actuated by the most patriotic sentiments in asking for the location of the Exposition at this place. Animated by the most public spirited motives they have made such preparations for the Exposition as we trust you cannot but look upon with satisfaction.

The fidelity and remarkable skill of the master artists of construction must be a justification for the pride with which we point to the structures which rise about us in such graceful and magnificent proportions. In furnishing grounds and buildings which should meet the modern demand for utility and scientific adaptation, we have not done violence, let us hope, to that growing love for the beautiful which gratifies the eye and educates the taste. Nature, science and art have been called upon to contribute their richest gifts to make these grounds and buildings worthy of your acceptance.

The Board of Directors now beg leave to tender to the World's Columbian Commission and to the nation these buildings, in fulfillment of Chicago's pledge and in honor of the great event we celebrate."

The President of the Columbian Commission, on receiving the Exposition from the Board of Directors, thus presented it to the Vice-President of the United States, Levi P. Morton, for dedication:

When a structure designed for a beneficient purpose has reached completion and is about to be devoted to its object, it is deemed fitting, in accordance with a custom which sprang from the aspirations of man, and which has received the sanction of successive generations, that its intent and aim shall be declared amid imposing ceremonies, and the good will of the present and the blessing of the future invoked upon it.

If this occasion shall have as one of its results the inauguration of another festal day to enlarge the too meager calendar of our people, the world will be richer thereby, and a name which has been hitherto held in vague and careless remembrance will be made a vital and elevating force to mankind.

Anniversaries are the punctuations of history. They are the emphasis given to events, not by the song of the poet, or the pen of the rhetorician, but by the common acclaim of mankind. They are the monuments of the heroes and the saviors of the race. They are the Memnons which fill the heart with promise, the eye with gladness and the ear with song.

The teacher of Socrates, when dying was asked what he wished for a monument. He answered: "Give the boys a holiday."

It was a happy thought to have linked with the achievements of Columbus and Pinzon, which doubled the area of the habitable globe, an undertaking whereby we hope to illustrate the fact that they also made possible more than a duplication of blessings to mankind.

As these great men died ignorant of the magnitude of their work, may we not hope that this Exposition will accomplish greater good than will be revealed to

us of today, be its outcome never so brilliant? May we not hope that lessons here learned, transmitted to the future, will be potent forces long after the multitudes that throng these aisles shall have measured their span and faded away?

Four hundred years ago today, Rodrigo de Triana, from the prow of the "Pinta" cried, "Land." That cry marked the commencement of an era wherein has been condensed more of good import to the race than in any other. Today, at the floodtime of that era we are reminded of what that cry involved, and of how much there is yet to do to give it its fullest significance.

There are no more continents to discover, but there is much to do to make both hemispheres the home of intelligence, virtue and consequent happiness. To that end no one material thing can contribute than expositions to which are invited, in a fraternal spirit, all nations, tribes and peoples, where each shall give and receive according to their respective capacities.

The foundations of civilization have been laid. Universal enlightment, now acknowledged as the safe substructure of every state, receives an added impulse from the commingling of peoples and the fraternization of races such as are ushered in by the pageant of today.

Hitherto the work of the National Commission and of the Exposition Company has been on different but convergent lines; today the roads unite, and it may not be amiss at this time to speak of the work already done. Two years ago the ground on which we stand was a dreary waste of sand-dunes and quagmires, a home for wild fowl and aquatic plants. Under skilled artists, supplemented by intelligence, force, industry and money, this waste has been changed by the magic hand of labor to its present attractive proportions. I do not speak of this work as an artist, but as one of the great body of laymen whom it is the high calling of art to uplift. To me it seems that, if these buildings should never be occupied, if the exhibits should never come to attract and educate, if our people could only look upon these walls, towers, avenues and lagoons, a result would be accomplished by the influence diffused well worth all the cost.

It was an act of high intelligence which, in the beginning, called a congress of the most eminent of our architects for consultation and concerted action. No one brain could have conceived the dream of beauty, or lured from fancy and crystallized in form these habitations where art will love to linger and science, Cornelia-like, shall expose here children to those who ask to see her jewels.

Of the Commission and its agencies, its Director General and the heads of its departments, its agents and envoys, I, although a part of that national organization, may be permitted to speak. Called together by the President two years ago its organic law difficult of construction, with room for honest and yet contradictory opinions, it has striven honestly, patriotically and dilligently to do its whole duty. Through its agencies it has reached to the uttermost parts of the earth to gather in all that could contribute to make this not only the museum of the savant and the well read but the kindergarten of the child and sage.

The National Commission will, in due time, take appropriate action touching the formal acceptance of the buildings provided under their direction by the World's

Columbian Exposition Company for this National and International Fair, and to you, Mr. President, as the highest representative of the Nation, is assigned the honor of dedicating them to the purposes determined and declared by the Congress of the United States.

In behalf of the men and women who have devoted themselves to this great work, of the rich who have given of their abundance and the poor who have given of their necessities; in behalf of the architects who have given to their ideals a local habitation and a name, and the artists who have brought hither the three graces of modern life, form, color, and melody, to decorate and inspire; of the workmen who have prepared the grounds and reared the walls; in behalf of the chiefs who have organized the work of the exhibitors; in behalf of the city of Chicago, which has munificently voted aid, of the Congress which has generously given of the National moneys: in behalf of the World's Columbian Commission, the World's Columbian Exposition Company, and the Board of Lady Managers, I ask you to dedicate these buildings and grounds to humanity, to the end that all men and women of every climate may feel that the evidence of material progress which may here meet the eye is good only so far as it may promote that higher life which is the true aim of civilization—that the evidences of wealth here exhibited and the stimulus herein given to industry are good only so far as they may extend the area of human happiness."

At 4 o'clock, in the presence of a vast audience which rose at the moment, but could, as a rule, hear no word of the speaker, the Vice-President of the United States, acting by courtesy for the President of the United States, and addressing President Palmer, of the National Commission, read the following oration:

Mr. President: Deep, indeed, must be the sorrow which prohibits the President of the United States from being the central figure in these ceremonials. Realizing from these sumptuous surroundings, the extent of design, the adequacy of execution, and the vastness of results, we may well imagine how ardently he has aspired to be officially and personally connected with this great work, so linked to the past and to the present of America. With what eloquent words he would have spoken of the heroic achievements and radiant future of his beloved country. While profoundly anguished in his most tender earthly affection, he would not have us delay or falter in these dedicatory services, and we can only offer to support his courage by a profound and universal sympathy.

The attention of our whole country, and of all the people elsewhere concerned in industrial progress, is to-day fixed upon the city of Chicago. The name of Chicago has become familiar with the speech of all civilized communities; bureaus are established at many points in Europe for the purpose of providing transportation hither; and during the coming year the first place suggested to the mind, when men talk of America, will be the city of Chicago. This is due not only to the Columbian Exposition which marks an epoch, but to the marvelous growth and energy of the second commercial city of the Union.

I am not here to recount the wonderful story of this city's rise and advancement, of the matchless courage of her people, of her second birth out of the ashes

of the most notable conflagration of modern times, nor of the eminent position she has conquered in commerce, in manufactures, in science and in the arts.

These are known of all men who keep pace with the world's progress.

I am here in behalf of the government of the United States, in behalf of all the people, to bid all hail to Chicago, all hail to the Columbian Exposition.

From the St. Lawrence to the Gulf, and from the peerless cosmopolitan capital by the sea to the Golden Gate of California, there is no longer a rival city to Chicago, except to emulate her in promoting the success of this work.

New York has signalized the opening of the new era by a commemorative function, instructive to the student, encouraging to the philanthropist, and admonitory to the forces arrayed against liberty.

Her houses of worship, without distinction of creed, have voiced their thanks to Almighty God for religious freedom; her children to the amount of five and twenty thousand have marched under the inspiration of a light far broader than Columbus, with all his thirst for knowledge, enjoyed at the University of Pavia; and for three successive days and nights processional progresses on land and water, aided by Spain, and Italy, and France, saluted the memory of the great pilot with the fruits of the great discovery in a pageant more brilliant than that at Barcelona, when upon a throne of Persian fabrics, Ferdinand and Isabella disregarded the etiquette of Castile and Aragon, received him standing, attended by the most splendid court of Christendom.

And what a spectacle is presented to us here. As we gaze upon these munificent erections, with their columns and arches, their entablatures and adornments, when we consider their beauty and rapidity of realization, they would seem to be evoked at a wizard's touch of Aladdin's lamp.

Praise for the organization and accomplishment, for the architect and builder, for the artist and artisan, may not now detain me, for in the year to come, in the mouths of all men it will be unstinted.

These are worthy shrines to record the achievements of the two Americas, and to place them side by side with the arts and industries of the elder world, to the end that we may be stimulated and encouraged to new endeavors. Columbus is not in chains, nor are Columbian ideas in fetters. I see him, as in the great picture under the dome of the Capitol with kneeling figures about him, betokening no longer the contrition of his followers, but the homage of mankind, with erect form and lofty mien animating these children of a new world to higher facts and bolder theories.

We may not now anticipate the character and value of our national exhibit. Rather may we modestly anticipate that a conservative award will be made by the world's criticism to a young nation eagerly listening to the beckoning future, within whose limits the lightning was first plucked from heaven at the will of man, where the expansive power of steam was first compelled to transport mankind and merchandise over the water-ways of the world, where the implements of agriculture and handicraft have been so perfected as to lighten the burdens of toil, and where the subtle forces of nature, acting through the telegraph and telephone, are daily

startling the world by victories over matter, which in the days of Columbus might have been reckoned among the miracles.

We can safely predict, however, those who will come from the near and distant regions of our country, and who will themselves make part of the National exhibit. We shall see the descendants of the loyal cavaliers of Virginia, of the Pilgrim Fathers of New England, of the sturdy Hollanders who in 1624 bought the twenty-two thousand acres of the Island of Manhattan for the sum of $24, of the adherents of the old Christian faith who found a resting-place in Baltimore, of the Quakers and Palatine Germans who settled in Pennsylvania and New Jersey, of the Huguenots who fled from the revocation of the edict of Nantes to the banks of the Hudson in the North and those of the Cooper and Ashley rivers in the South, of the refugees from Salzburg in Georgia, and of Charles Edward's Highlanders in North Carolina. With them also we shall have in person, or in their sons, the the thousands of others from many climes who, with moderate fortunes, have joined their future to that of the great Republic, or who with sinewy arms have opened our waterways and builded our ironways.

We trust that from the lands beyond the seas many will come to engage in fraternal competition, or to point us to more excellent standards. If they shall find little in our product to excite their admiration, we shall welcome them to the atmosphere of the new world, where some of the best efforts have been made in the cause of freedom and progress by Washington and Franklin and Lafayette; by Agassiz and Lincoln and Grant; by Bolivar and Juarez and Toussaint L'Ouverture; by Fulton and Morse and Edison.

Columbus lived in the age of great events. When he was a child in 1440 printing was first done by movable types; seven years later, the Vatican library, the great fountain of learning, was founded by Nicholas the Fifth; and 1455 is given as the probable date of the Mazarine Bible, the earliest printed book known. It was not until a hundred years after the discovery, that Galileo, pointing his little telescope to the sky, found the satelites of Jupiter, and was hailed as the Columbus of the heavens.

His character was complex, as was that of many of the men of his time who made their mark in history. But his character and attainments are to be estimated by those of his contemporaries, and not by other standards. Deeply read in mathematical science, he was certainly the best geographer of his time. I believe, with Castelar, that he was sincerely religious, but his sincerity did not prevent his indulging in dreams. He projected, as the eloquent Spanish orator says, the purchase of the holy places of Jerusalem, in the event of his finding seas of pearls, cities of gold, streets paved with sapphires, mountains of emeralds, and rivers of diamonds. How remote, and yet how marvelous, has been the realization! Two products of the southern continent which he touched and brought into the world's economy have proved of inestimable value to the race, far beyond what the imagined wealth of the Indies could buy.

The potato, brought by the Spaniards from what is now the Republic of

Ecuador, in the beginning of the century following the discovery, has proved, next to the principal cereals, to be the most valuable of all plants for human food. It has sensibly increased the wealth of nations and added immeasurably to the welfare of the people. More certain than other crops, and having little to fear from storm or drouth, it is hailed as an effectual barrier against the recurrence of famines.

Nor was the other product of less importance to mankind. Peruvian bark comes from a tree of spontaneous growth in Peru, and many other parts of South America. It received its botanical name from the wife of a Spanish viceroy, liberated from an intermittent fever by its use. Its most important base, quinine, has come to be regarded, as nearly as may be, as a specific for that disease and also for the preservation of health in certain latitudes, so that no vessel would dare to approach the east or west coast of Africa without a supply, and parts of our own land would be made partially desolate by its disappearance. No words that I could use could magnify the blessings brought to mankind by these two individuals of the vegetable kingdom from the shores of the New World.

Limited time for preparation does not permit me to speak authoritatively of the progress and proud position of our sister republics and of the Dominion of Canada to demonstrate the moral and material fruits of the great discovery. Concerning ourselves the statistics are familiar and constitute a marvel. One of the states recently admitted, the state of Montana, is larger than the empire of Turkey.

We are near the beginning of another century, and if no serious change occurs in our present growth, in the year 1935, in the lifetime of many now in manhood, the English-speaking republicans of America will number more than 180,000,000. And for them, John Bright in a burst of impassioned eloquence predicts one people, one language, one law, and one faith; and all over the wide continent, the home of freedom and a refuge for the oppressed of every race and every clime.

The transcendent feature in the character of Columbus was his faith. That sustained him in days of trial and darkness, and finally gave him the great discovery. Like him, let us have faith in our future. To insure that future, the fountains must be kept pure, public integrity must be preserved. While we reverence what Garibaldi and Victor Emmanuel fought for, the union of peoples, we must secure above all else what Steuben and Kosciusko aided our fathers to establish—liberty regulated by law.

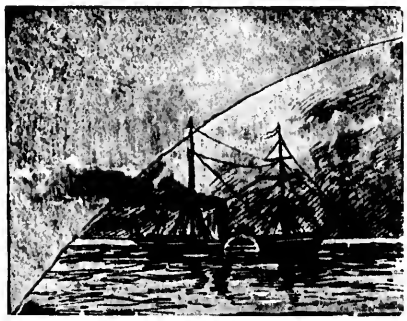
If the time should ever come when men trifle with the public conscience, let me predict the patriotic action of the Republic in the language of Milton:

"Methinks I see in my mind a noble and puissant nation rousing herself like a strong man after sleep, and shaking her invincible locks; methinks I see her as an eagle mewing her mighty youth, and kindling her undazzled eyes at the full mid-day beam; purging and unscaling her long abused sight at the fountain itself of heavenly radiance; while the whole noise of timorous and flocking birds, with those also that love the twilight flutter about, amazed at what she means."

Mr. President, in the name of the Government of the United States, I hereby dedicate these buildings and their appurtenances, intended by the Congress of the United States for the use of the World's Columbian Exposition, to the world's progress in art, in science, in agriculture and in manufactures.

I dedicate them to humanity.

God save the United States of America.



GROUP DIRECTORS WORLD'S COLUMBIAN EXPOSITION.

1. Victor Lawson. 2. Andrew McNally.
3. Otto Young. 4. C. L. Hutchinson. 5. J. W. Scott.
6. Chas. T. Yerkes.
7. G. H. Wheeler. 8. John C. Welling. 9. Mark L. Crawford.
10. C. H. G. Billings. 11. J. W. Ellsworth.

CHAPTER VI.

MRS. POTTER PALMER'S BRILLIANT ADDRESS.

The Liberation of Women—They Now Have Time to Think, to be Educated, to Plan and Pursue Careers of Their Own Choosing—The Application of Machinery to the Performance of Many Heretofore Laborious Occupations of Women Relieves Them of Much Oppression—Public Sentiment will Yet Favor Woman's Industrial Equality and Just Compensation for Services Rendered—She Now Drinks Deeply of the Long-Denied Fountain of Knowledge—Is the World Ready to Give Her Industrial and Intellectual Independence, and to Open All Doors Before Her ?

DIRECTOR GENERAL DAVIS announced that Haydn's chorus, "The Heavens Are Telling," which was No. 7 on the program, would be omitted, and then he introduced Mrs. Potter Palmer, President of the Board of Lady Managers. Mrs. Palmer's appearance called forth enthusiastic applause. Handkerchiefs waved from all parts of the building, and from the chorus stand came the shrill voices of hundreds of school children, joining in the sound of greeting. Mrs. Palmer read the following address: Official representation for women, upon so important an occasion as the present, is unprecedented. It seems peculiarly appropriate that this honor should have been accorded our sex when celebrating the great deeds of Columbus, who, inspired though his visions may have been, yet required the aid of an Isabella to transform them into realities.

The visible evidences of the progress made since the discovery of this great continent will be collected six months hence in these stately buildings now to be dedicated.

The magnificent material exhibit, the import of which will presently be eloquently described by our orators, will not, however, so vividly represent the great advance of modern thought as does the fact that man's "silent partner" has been invited by the Government to leave her retirement to assist in conducting a great national enterprise. The provision of the Act of Congress that the Board of Lady Managers appoint a jury of her peers to pass judgment upon woman's work, adds to the significance of the innovation, for never before was it thought necessary to apply this fundamental principle of justice to our sex.

Realizing the seriousness of the responsibilities devolving upon it, and inspired by a sense of the nobility of its mission, the Board has, from the time of its organization, attempted most thoroughly and most conscientiously to carry out the intentions of Congress.

It has been able to broaden the scope of its work and extend its influence through the co-operation and assistance so generously furnished by the Columbian Commission and the Board of Directors of the Exposition. The latter took the initiative in making an appropriation for the Woman's Building, and in allowing the Board to call attention to the recent work of women in new fields by selecting from their own sex the architect, decorators, sculptors and painters to create both the building and its adornments.

Rivaling the generosity of the Directors, the National Commission has honored the Board of Lady Managers by putting into its hands all of the interests of women in connection with the Exposition, as well as the entire control of the Woman's Building.

In order the more efficiently to perform the important functions assigned it, the Board hastened to secure necessary co-operation. At its request women were made members of the World's Fair Boards of almost every state and territory of the Union. Inspired by this success at home, it had the courage to attempt to extend the benefits it had received to the women of other countries. It officially invited all foreign governments, which had decided to participate in the Exposition, to appoint committees of women, to co-operate with it. The active help given by the Department of State was invaluable in promoting this plan, the success of which has been notable, for we now have under the patronage of royalty, or the heads of government, committees composed of the most influential, intellectual and practical women in France, England, Germany, Austria, Russia, Italy, Holland, Belgium, Sweden, Norway, Portugal, Japan, Siam, Algeria, Cape Colony, Ceylon, Brazil, the Argentine Republic, Cuba, Mexico and Nicaragua, and although committees have not yet been announced, favorable responses have been received from Spain, Colombia, Ecuador, Venezuela, Panama and the Sandwich Islands.

No organization comparable to this has ever before existed among women. It is official, acting under government authority and sustained by government funds. It is so far-reaching that it encircles the globe.

Without touching upon politics, suffrage, or other irrelevant issues, this unique organization of women for women will devote itself to the promotion of their industrial interests. It will address itself to the formation of a public sentiment which will favor woman's industrial equality, and her receiving just compensation for services rendered. It will try to secure for her work the consideration and respect which it deserves, and establish her importance as an economic factor. To this end it will endeavor to obtain and install in these buildings exhibits showing the value of her contributions to the industries, sciences and arts, as well as statistics giving the proportionate amount of her work in every country.

Of all the changes that have resulted from the great ingenuity and inventiveness of the race, there is none that equals in importance to woman the application of machinery to the performance of the never-ending tasks that have previously been hers. The removal from the household to the various factories where such work is now done of spinning, carding, dyeing, knitting, the weaving of textile fabrics, sewing, the cutting and making of garments and many other laborious occupations has

enabled her to lift her eyes from the drudgery that has oppressed her since prehistoric days.

The result is that women as a sex have been liberated. They now have time to think, to be educated, to plan and pursue careers of their own choosing. Consider the value to the race of one-half of its members being enabled to throw aside the intolerable bondage of ignorance that has always weighed them down! See the innumerable technical, professional, and art schools, academies and colleges that have been suddenly called into existence by the unwonted demand! It is only about one hundred years since girls were first permitted to attend the free schools of [illegible] They were then allowed to take the places of boys for whom the schools were instituted, during the season when the latter were helping to gather in the harvest.

It is not strange that woman is drinking deeply of the long-denied fountain of knowledge. She had been told, until she almost believed it, by her physician, that she was of too delicate and nervous an organization to endure the application and mental strain of the schoolroom—by the scientist that the quality of the gray matter of her brain would not enable her to grasp the exact sciences, and that its peculiar convolutions made it impossible for her to follow a logical proposition from premise to conclusion—by her anxious parents that there was nothing that a man so abominated as a learned woman, nothing so unlovely as a blue stocking, and yet she comes, smiling from her curriculum with her honors fresh upon her, healthy and wise, forcing us to acknowledge that she is more than ever attractive, companionable, and useful.

What is to be done with this strong, self-poised creature of glowing imagination and high ideals, who evidently intends, as a natural and inherent right, to pursue her self-development in her chosen line of work? Is the world ready to give her industrial and intellectual independence, and to open all doors before her? The human race is not so rich in talent, genius and useful creative energy that it can afford to allow any considerable proportion of these valuable attributes to be wasted or unproductive, even though they be possessed by women.

The sex which numbers more than one-half the population of the world is forced to enter the keen competition of life with many disadvantages, both real and factitious. Are the legitimate compensation and honors that should come as the result of ability and merit to be denied on the untenable ground of sex aristocracy?

We are told by scientists that the educated eye and ear of today are capable of detecting subtle harmonies and delicate gradations of sound and color that were imperceptible to our ancestors; that artists and musicians will consequently never reach the last possible combination of tones, or of tints, because their fields will widen before them, disclosing, constantly, new beauties and attractions. We cannot doubt that human intelligence will gain as much by development; that it will vibrate with new power because of the uplifting of one-half of its members—and of that half, which is, perhaps, conceded to be the more moral, sympathetic, and imaginative—from darkness into light.

As a result of the freedom and training now granted them, we may confi-

dently await, not a renaissance, but the first blooming of the perfect flower of womanhood. After centuries of careful pruning into convential shapes, to meet the requirements of an artificial standard, the shears and props have been thrown away. We shall learn by watching the beauty and the vigor of the natural growth in the open air and sunshine, how artificial and false was the ideal we had previously cherished. Our efforts to frustrate nature will seem grotesque, for she may always be trusted to preserve her types. Our utmost hope is, that woman may become a more congenial companion and fit partner for her illustrious mate, whose destiny she has shared during the centuries.

We are proud that the statesmen of our own great country have been the first to see beneath the surface and to understand that the old order of things has passed away, and that new methods must be inaugurated. We wish to express our thanks to the Congress of the United States for having made this great step forward, and also for having subsequently approved and indorsed the plans of the Board of Lady Managers, as was manifested by their liberal appropriation for carrying them out.

We most heartily appreciate the assistance given us by the President of the United States, the Department of State, and our foreign ministers. We hope to have occasion to thank all of the other great departments of the government before we finish our work.

Even more important than the discovery of Columbus, which we are gathered together to celebrate, is the fact that the general government has just discovered woman. It has sent out a flash-light from its heights, so inaccessible to us, which we shall answer by a return signal when the Exposition is opened. What will be its next message to us?

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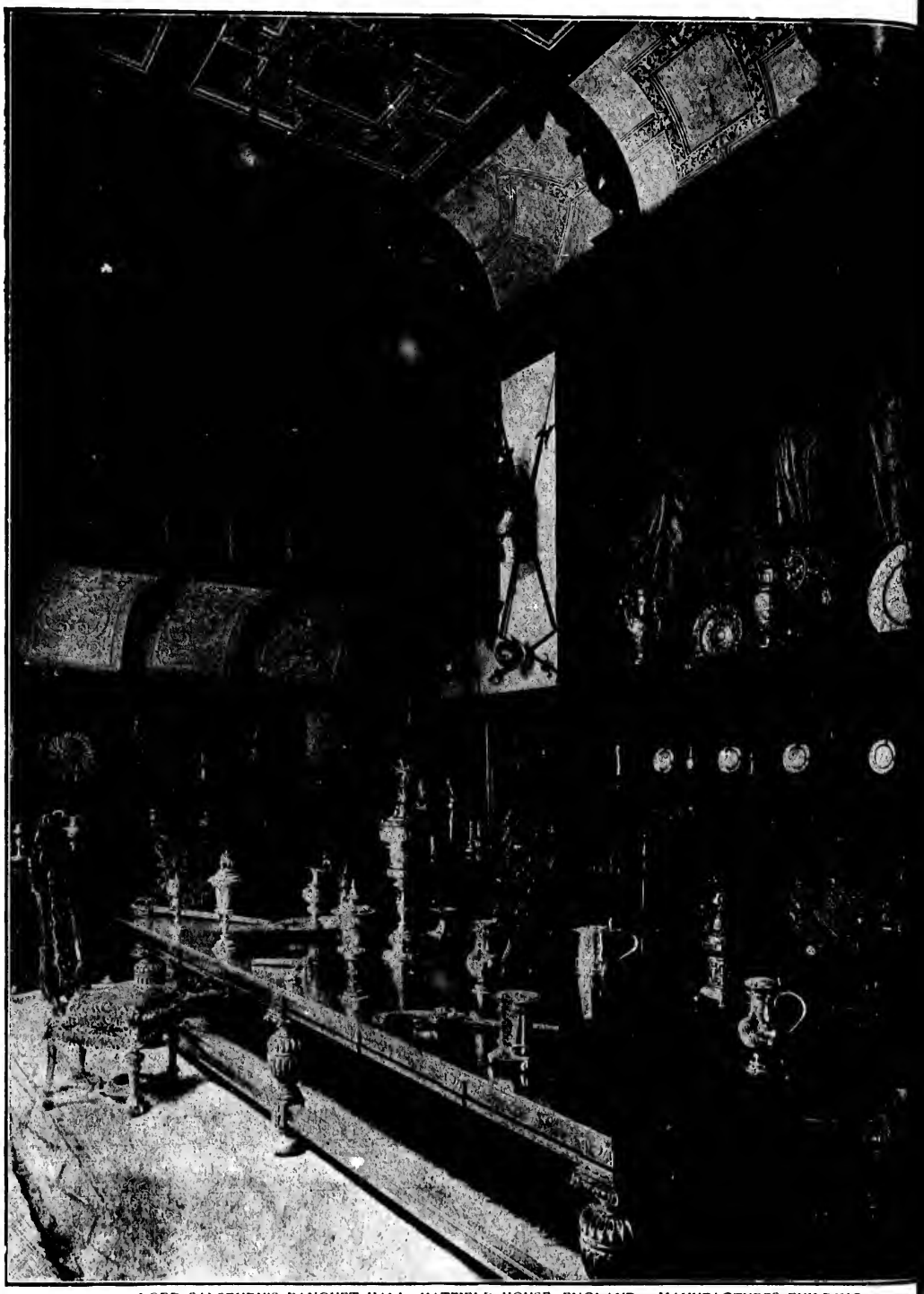

LORD SALSBURY'S BANQUET HALL, HATFIELD HOUSE, ENGLAND. MANUFACTURES BUILDING.

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CHAPTER VII.

THE DEDICATORY ORATION.

Magnificent Effort of Henry Watterson—Grand and Patriotic Throughout—The Earnest Kentuckian Touches Brilliantly Upon Many of the Salient Points from 1492 to the Present Day—From the Hillside of Santa Rabida to the Present Hour of Celebration—No Geography in American Manhood—No Sections to American Fraternity—The Rise of the Young Republic—The Drum Taps of the Revolution—The Tramp of the Minute Men—The Curse of Slavery Gone—The Mirage of Separation Vanished—A Great and Undivided Country.

WITH darkness settling fast, the dedication service had only reached its main event, the Dedicatory Oration, by Henry Watterson. This effort had been prepared at almost a moment's call, on the declination of Mr. Breckinridge. In its delivery, too, the great journalist exhibited that strong good sense which, together with his genius, has ensconsed him so securely in the hearts of Americans. No orator was ever given a more hearty reception than was accorded Henry Watterson when he was introduced by Director-General Davis. And Mr. Watterson entered into the spirit of the occasion, delivering his address in his own peculiarly effective style. Just before he concluded, a ray of sunlight entered one of the western windows, and falling upon his gray locks seemed to crown him. The great Kentuckian accepted the gift, and throwing his face into the strong light delivered his final sentiment so as to impress each individual of that throng. His speech was as follows:

Among the wonders of creative and constructive genius in the course of preparation for this festival of the nations, whose formal and official inauguration has brought us together, will presently be witnessed upon the margin of the inter-ocean which gives to this noble and beautiful city the character and rank of a maritime metropolis, a spectatorium, wherein the Columbian epic will be told with realistic effects surpassing the most splendid and impressive achievements of the modern stage. No one who has had the good fortune to see the models of this extraordinary work of art can have failed to be moved by the union which it embodies, of the antique in history and the current in life and thought, as, beginning with the weird mendicant fainting upon the hillside of Santa Rabida it traces the strange adventures of the Genoese seer from the royal camp of Santa Fe to the sunny coasts of the Isles of Inde; through the weary watches of the endless night, whose

sentinel stars seemed set to mock but not to guide; through the trackless and shoreless wastes of the mystic sea, spread day by day to bear upon every rise and fall of its heaving bosom the death of fair, fond hopes, the birth of fantastic fears; the peerless and thrilling revelation, and all that has followed to the very moment that beholds us here; citizens, freemen, equal shareholders in the miracle of American civilization and development. Is there one among us who does not thank his Maker that he has lived to join in this universal celebration, this jubilee of mankind?

I am appalled when I reflect upon the portent and meaning of the proclamation which has been delivered in our presence. The painter employed by the king's command to render to the eye some particular exploit of the people, or the throne, knows in advance precisely what he has to do; there is a limit set upon his purpose; his canvas is measured; his colors are blended, and, with the steady and sure hand of the master, he proceeds, touch upon touch, to body forth the forms of things known and visible. Who shall measure the canvas or blend the colors that are to the mind's eye of the present the scenes of the past in American glory? Who shall dare attempt to summon the dead to life, and out of the tomb of the ages recall the tones of the martyrs and heroes whose voices, though silent forever, still speak to us in all that we are as a nation, in all that we do as men and women?

We look before and after, and we see through the half-drawn folds of Time as through the solemn archways of some grand cathedral the long procession pass, as silent and as real as a dream; the caravels, tossing upon Atlantic billows, have their sails refilled from the east and bear away to the west; the land is reached, and fulfilled is the vision whose actualities are to be gathered by other hands than his who planned the voyage and steered the bark of discovery; the long sought, golden day has come to Spain at last, and Castilian conquests tread one upon another fast enough to pile up perpetual power and riches.

But even as simple justice was denied Columbus was lasting tenture denied the Spaniard.

We look again and we see in the far northeast the Old World struggle between the French and English transferred to the New, ending in the tragedy upon the heights above Quebec; we see the sturdy Puritans in bell-crowned hats and sable garments assail in unequal battle the savage and the elements, overcoming both to rise against a mightier foe; we see the gay but dauntless cavaliers, to the southward, join hands with the Roundheads in holy rebellion. And, lo, down from the green-walled hills of New England, out of the swamps of the Carolinas, came faintly to the ear like far-away forest leaves stirred to music by autumn winds, the drum-taps of the Revolution; the tramp of the minute-men, Israel Putnam riding before; the hoof-beats of Sumter's horse galloping to the front; the thunder of Stark's guns in spirit-battle; the gleam of Marion's watch-fires in ghostly bivouac; and there, there in serried, saint-like ranks on fame's eternal camping-ground stand—

> "The old Continentals,
> In their ragged regimentals,
> Yielding not,"

as amid the singing of angels in heaven, the scene is shut out from our mortal vision by proud and happy tears.

We see the rise of the young republic; and the gentlemen in knee-breeches and powdered wigs who signed the Declaration and the gentlemen in knee-breeches and powdered wigs who made the Constitution. We see the little Nation menaced from without. We see the riflemen in hunting-shirt and buckskin swarm from the cabin in the wilderness to the rescue of country and home; and our hearts swell to a second and final decree of independence won by the powers and valor of American arms upon the land and sea.

And then, and then—since there is no life of nations or of men without its shadow and its sorrow—there comes a day when the spirits of the fathers no longer walk upon the battlements of freedom; and all is dark; and all seems lost save liberty and honor, and, praise God, our blessed Union. With these surviving, who shall marvel at what we see to-day; this land filled with the treasures of earth; this city, snatched from the ashes, to rise in splendor and renown passing the mind to preconceive.

Truly, out of trial comes the strength of man, out of disaster comes the glory of the State!

We are met this day to honor the memory of Christopher Columbus, to celebrate the four-hundredth annual return of the year of his transcendent achievement, and with fitting rites, to dedicate to America and the universe a concrete exposition of the world's progress between 1492 and 1892. No twenty centuries can be compared with those four centuries, either in importance or in interest, as no previous ceremonial can be compared with this in its wide significance and reach; because, since the advent of the Son of God, no event has had so great an influence upon human affairs as the discovery of the western hemisphere. Each of the centuries that have intervened marks many revolutions. The merest catalogue would crowd a thousand pages. The story of the least of the nations would fill a volume. In what I have to say upon this occasion, therefore, I shall confine myself to our own; and, in speaking of the United States of America, I propose rather to dwell upon our character as a people, and our reciprocal obligations and duties as an aggregation of communities, held together by a fixed constitution, and charged with the custody of a union upon whose preservation and perpetuation in its original spirit and purpose the future of free popular government depends, than to enter into a dissertation upon abstract principles, or to undertake an historic essay. We are a plain, practical people. We are a race of inventors and workers, not of poets and artists. We have led the world's movement, not its thought. Our deeds are to be found not upon frescoed walls, or in ample libraries, but in the machine shop, where the spindles sing and the looms thunder; on the open plain, where the steam plow, the reaper and the mower contend with one another in friendly war against the obduracies of nature; in the magic of electricity as it penetrates the darkest caverns with its irresistible power and light. Let us consider ourselves and our conditions, as far as we are able, with a candor untinged by cynicism and a confidence having no air of assurance.

A better oportunity could not be desired for a study of our peculiarities than is furnished by the present moment.

We are in the midst of the quadrennial period established for the selection of a Chief Magistrate. Each citizen has his right of choice, each has his right to vote and to have his vote freely cast and fairly counted. Whenever this right is assailed for any cause wrong is done and evil must follow, first to the whole country, which has an interest in all its parts, but most to the community immediately involved, which must actually drink of the cup that has contained the poison and cannot escape its infection.

The abridgement of the right of suffrage, however, is very nearly proportioned to the ignorance or indifference of the parties concerned in it, and there is good reason to hope that with the expanding intelligence of the masses and the growing enlightenment of the times, this particular form of corruption in elections will be reduced below the danger line.

To that end, as to all other good ends, the moderation of public sentiment must ever be our chief reliance, for when men are forced by the general desire for truth, and the light which our modern vehicles of information thrown upon truth, to discuss public questions for truth's sake, when it becomes the plain interest of public men, as it is their plain duty, to do this, and when, above all, friends and neighbors cease to love one another less because of individual differences of opinion about public affairs, the struggle for unfair advantage will be relegated to those who have either no character to lose or none to seek.

It is admitted on all sides that the current Presidential campaign is freer from excitement and t mult than was ever known before, and it is argued from this circumstance that we are traversing the epoch of the commonplace. If this be so, thank God for it! We have had full enough of the dramatic and sensational and need a season of mediocrity and repose. But may we not ascribe the rational way in which the people are going about their business to larger knowledge and experience, and a fairer spirit than have hitherto marked our party contentions?

Parties are as essential to free government as oxygen to the atmosphere, or sunshine to vegetation. And party spirit is inseparable from party organism. To the extent that it is tempered by good sense and good feeling, by love of country and integrity of purpose, it is a supreme virtue; and there should be no gag short of a decent regard for the sensibilities of others put upon its freedom and plainness of utterance. Otherwise the limpid pool of democracy would stagnate, and we would have a republic only in name. But we should never cease to be admonished by the warning words of the Father of his Country against the excess of party spirit, reënforced as they are by the experience of half a century of party warfare; happily culminating in the complete triumph of American principles, but brought many times dangerously near to the annihilation of all that was great and noble in the national life.

Sursum Corda. We have in our own time seen the Republic survive an irrepressible conflict sown in the blood and marrow of the social order. We have seen the Federal Union, not too strongly put together in the first place, come out of a

great war of sections stronger than when it went into it, its faith renewed, its credit rehabilitated, and its flag saluted with love and homage by 60,000,000 of God-fearing men and women, thoroughly reconciled and homogeneous. We have seen the Federal Constitution outlast the strain, not merely of a reconstructory ordeal and a presidential impeachment, but a disputed count of the electoral vote, a congressional deadlock, and an extra constitutional tribunal, yet standing firm against the assaults of its enemies, whilst yielding itself with admirable flexibility to the needs of the country and the time. And finally we saw the gigantic fabric of the Federal Government transferred from hands that had held it a quarter of a century to other hands without a protest, although so close was the poll in the final count that a single blanket might have covered both contestants for the chief magisterial office. With such a record behind us, who shall be afraid of the future?

The young manhood of the country may take this lesson from those of us who lived through times that did indeed try men's souls—when, pressed down from day to day by awful responsibilities and suspense, each night brought a terror with every thought of the morrow, and, when look where we would, there were light and hope nowhere—that God reigns and wills, and that this fair land is and has always been in his own keeping.

The curse of slavery is gone. It was a joint heritage of woe to be wiped out and expiated in blood and flame. The mirage of the Confederacy has vanished. It was essentially bucolic, a vision of Arcadia, the dream of a most attractive economic fallacy. The Constitution is no longer a rope of sand. The exact relations of the states to the Federal Government, left open to double construction by the authors of our organic being because they could not agree among themselves and union was the paramount object, has been clearly and definitely fixed by the last three amendments to the original chart, which constitute the real treaty of peace between the North and South, and seal our bonds as a nation forever.

The Republic represents at last the letter and the spirit of the sublime declaration. The fetters that bound her to the earth are burst asunder. The rags that degraded her beauty are cast aside. Like the enchanted princess in the legend, clad in spotless raiment and wearing a crown of living light, she steps in the perfection of her maturity upon the scene of this, the latest and proudest of her victories, to bid a welcome to the world!

Need I pursue the theme? This vast assemblage speaks with a resonance and meaning which words can never reach. It speaks from the fields that are blessed by the never-failing waters of the Kennebec and from the farms that sprinkle the Valley of the Connecticut with mimic principalities more potent and lasting than the real; it speaks in the whirr of the mills of Pennsylvania and in the ring of the wood-cutter's axe from the forests of the lake peninsulas; it speaks from the great plantations of the South and West, teeming with staples that insure us wealth and power and stability; yea, and from the mines, forests and quarries of Michigan and Wisconsin, of Alabama and Georgia, of Tennessee and Kentucky, far away to the regions of silver and gold, that have linked the Colorado and Rio Grande in close embrace, and annihilated time and space between the Atlantic and Pacific; it speaks

in one word from the hearthstone in Iowa and Illinois, from the home in Mississippi and Arkansas, from the hearts of 70,000,000 of fearless, free-born men and women, and that one word is "Union!"

There is no geography in American manhood. There are no sections to American fraternity. It needs but six weeks to change a Vermonter into a Texan, and there has been a time when upon the battlefield, or the frontier, Puritan and Cavalier were not convertible terms, having in the beginning a common origin, and so diffused and diluted on American soil as no longer to possess a local habitation, or a nativity, except in the national unit.

The men who planted the signals of American civilization upon that sacred rock by Plymouth Bay were Englishmen, and so were the men who struck the coast a little lower down, calling their haven of rest after the great republican commoner, and founding by Hampton Roads a race of heroes and statesmen, the mention of whose names brings a thrill to every heart, The South claims Lincoln, the immortal, for its own; the North has no right to reject Stonewall Jackson, the one typical Puritan soldier of the war, for its own! Nor will it! The time is coming, is almost here, when hanging above many a mantel-board in fair New England—glorifying many a cottage in the Sunny South—shall be seen bound together, in everlasting love and honor, two cross-swords carried to battle respectively by the grandfather who wore the blue and the granfather who wore the gray.

I cannot trust myself to proceed. We have come here not so much to recall bygone sorrows and glories as to bask in the sunshine of present prosperity and happiness, to interchange patriotic greetings and indulge good auguries, and, above all, to meet upon the threshold the stranger within our gate, not as a foreigner, but as a guest and friend, for whom nothing that we have is too good.

From wheresoever he cometh we welcome him with all our hearts; the son of the Rhone and the Garonne, our godmother, France, to whom we owe so much, he shall be our Lafayette; the son of the Rhine and the Mozelle, he shall be our Goethe and Wagner; the son of the Campagna and the Vesuvian Bay, he shall be our Michael Angelo and our Garibaldi; the son of Arragon and the Indies, he shall be our Christopher Columbus, fitly honored at last throughout the world.

Our good cousin of England needs no words of special civility and courtesy from us. For him the latchstring is ever on the outer side; though, whether it be or not, we are sure that he will enter and make himself at home. A common language enables us to do full justice to one another at the festive board or in the arena of debate, warning both of us in equal tones against further parley on the field of arms.

All nations and all creeds be welcome here; from the Bosphorous and the Black sea, the Viennese woods and the Danubian plains; from Holland dike to Alpine crag; from Belgrade and Calcutta and round to China seas and the busy marts of Japan, the isles of the Pacific and the far-away capes of Africa—Armenian, Christian, and Jew—the American, loving no country except his own, but loving all mankind as his brother, bids you partake with us of these fruits of 400 years of

American civilization and development and behold these trophies of 100 years of American independence and freedom!

At this moment in every part of the American Union the children are taking up the wondrous tale of the discovery, and from Boston to Galveston, from the little log schoolhouse in the wilderness to the towering academy in the city and the town, may be witnessed the unprecedented spectacle of a powerful nation captured by an army of Lilliputians, of embryo men and women, of topling boys and girls, and tiny elves scarce big enough to lisp the numbers of the national anthem; scarce strong enough to lift the miniature flags that make of arid street and autumn wood an emblematic garden to gladden the sight and to glorify the red, white and blue. See

"Our young barbarians all at play,"

for better than these we have nothing to exhibit. They, indeed, are our crown jewels: the truest, though the inevitable, offspring of our civilzation and development; the representatives of a manhood vitalized and invigorated by toil and care, of a womanhood elevated and inspired by liberty and education. God bless the children and their mothers! God bless our country's flag! And God be with us now and ever, God in the roof-tree's shade and God on the highway, God in the winds and waves, and God in all our hearts!

CHAUNCEY M. DEPEW.

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CHAPTER VIII.

THE GLOWING TRIBUTE OF CHAUNCEY M. DEPEW.

An Oration So Brillant As To Hold Every Listener Spell-Bound—Columbus, the Discoverer, Washington, the Founder, Lincoln, the Savior—God Always Has in Training Some Commanding Genius for the Control of Great Crises in the Affairs of Nations and People—Neither Realism nor Romance Furnishes a More Striking and Picturesque Picture than that of Christopher Columbus—The Magician of the Compass Belonged to that High Order of "Cranks" who Confidently Walk Where "Angels Fear to Tread"—Continents Are His Monuments—Prayer by Cardinal Gibbons and Benediction by Rev. H. C. McCosh, of Philadelphia—Grand Display of Fireworks Closed the Dedication Festivities.

AFTER Mr. Watterson had concluded and the applause had died away, Director-General Davis stepped forward and said: "The chorus will now sing 'The Star Spangled Banner,' and everybody is invited to join in the chorus." The audience rose and as the strains of the grand old anthem floated out over the immense assemblage they lent the inspiration and the music of their voices to the great volume of harmony. Chauncey Depew had been on his feet during the singing of the anthem, and at its conclusion stepped quickly to the front and launched into his address. He was forced to halt, however, as his voice was drowned by the cheers of the audience. For nearly five minutes the gifted orator stood awaiting the applause to die out. Finally he was allowed to proceed, but was interrupted at frequent intervals by bursts of enthusiasm from his hearers. He said:

This day belongs not to America, but to the world. The results of the event it commemorates are the heritage of the peoples of every race and clime. We celebrate the emancipation of man. The preparation was the work of almost countless centuries, the realization was the revelation of one. The Cross on Calvary was hope; the cross raised on San Salvador was opportunity. But for the first, Columbus would never have sailed; but for the second, there would have been no place for the planting, the nurture and the expansion of civil and religious liberty. Ancient history is a dreary record of unstable civilizations. Each reached its zenith of material splendor and perished. The Assyrian, Persian, Egyptian, Grecian and Roman empires were proofs of the possibilities and limitations of man for conquest and intellectual development. Their destruction involved a sum of misery and relapse which made their creation rather a curse than a blessing. Force was the factor in the government of the world when Christ was born, and force was the

sole source and exercise of authority, both by church and state when Columbus sailed from Palos. The wise men traveled from the East toward the West under the guidance of the Star of Bethlehem. The spirit of the equality of all men before God and the law moved westward from Calvary with its revolutionary influence upon old institutions, to the Atlantic Ocean. Columbus carried it westward across the seas. The immigrants from England, Ireland, Scotland and Wales, from Germany and Holland, from Sweden and Denmark, from France and Italy, have, under its guidance and inspiration, moved west and again west, building states and founding cities until the Pacific limited their march. The exhibition of arts and sciences, of industries and inventions, of education and civilization, which the Republic of the United States will here present, and to which, through its Chief Magistrate, it invites all nations, condenses and displays the flower and fruitage of this transcendent miracle.

The anarchy and chaos which followed the breaking up of the Roman empire necessarily produced the feudal system. The people preferring slavery to annihilation by robber chiefs, became the vassals of territorial lords. The reign of physical force is one of perpetual struggle for the mastery. Power which rests upon the sword neither shares nor limits its authority. The king destroyed the lords, and the monarchy succeeded feudalism. Neither of these institutions considered or consulted the people. They had no part, but to suffer or die in this mighty strife of masters for the mastery. But the throne, by its broader view and greater resources, made possible the construction of the highways of freedom. Under its banner race, could unite, and petty principalities be merged, law substituted for brute force, and right for might. It founded and endowed universities, and encouraged commerce. It conceded no political privileges, but unconsciously prepared its subjects to demand them.

Absolutism in the state, and bigoted intolerance in the church, shackled popular unrest, and imprisoned thought and enterprise in the fifteenth century. The divine right of kings stamped out the faintest glimmer of revolt against tyranny; and the problems of science, whether of the skies or of the earth, whether of astronomy or geography, were solved or submerged by ecclesiastical decrees. The dungeon was ready for the philosopher who proclaimed the truths of the solar system, or the navigator who would prove the sphericity of the earth. An English Gladstone, or a French Gambetta, or a German Bismarck, or an Italian Garibaldi, or a Spanish Castelar, would have been thought monsters, and their deaths at the stake, or on the scaffold, and under the anathemas of the Church, would have received the praise and approval of kings and nobles, of priests and peoples. Reason had no seat in spiritual or temporal realms. Punishment was the incentive to patriotism, and piety was held possible by torture. Confessions of faith extorted from the writhing victim on the rack, were believed efficacious in saving his soul from fires eternal beyond the grave. For all that humanity to-day cherishes as its best heritage and choicest gifts, there was neither thought nor hope.

Fifty years before Columbus sailed from Palos, Gutenberg and Faust had forged the hammer which was to break the bonds of superstition, and open the

prison doors of the mind. They had invented the printing press and movable types. The prior adoption of a cheap process for the manufacture of paper, at once utilized the press. Its first service, like all its succeeding efforts, was for the people. The universities and the schoolmen, the privileged and learned few of that age, were longing for the revelation and preservation of the classic treasures of antiquity, hidden, and yet insecure in monastic cells and libraries. But the firstborn of the marvelous creation of these primitive printers of Mayence was the printed Bible. The priceless contributions of Greece and Rome to the intellectual training and development of the modern world came afterward, through the same wondrous machine. The force, however, which made possible America, and its reflex influence upon Europe, was the open Bible by the family fireside. And yet neither the enlightenment of the new learning, nor the dynamic power of the spiritual awakening, could break through the crust of caste which had been forming for centuries. Church and state had so firmly and dexterously interwoven the bars of privilege and authority that liberty was impossible from within. Its piercing light and fervent heat must penetrate from without.

Civil and religious freedom are founded upon the individual and his independence, his worth, his rights and his equal status and opportunity. For his planting and developement, a new land must be found, where, with limitless areas for expansion, the avenues of progress would have no bars of custom or heredity, of social orders, or privileged classes. The time had come for the emancipation of the mind and soul of humanity. The factors wanting for its fulfillment were the new world and its discoverer.

God always has in training some commanding genius for the control of great crises in the affairs of nations and peoples. The number of these leaders are less than the centuries, but their lives are the history of human progress. Though Cæsar and Charlemagne, and Hildebrand, and Luther, and William the Conqueror, and Oliver Cromwell, and all the epoch makers prepared Europe for the event, and contributed to the result, the lights which illumine our firmament to-day are Columbus the discoverer, Washington the founder, and Lincoln the savior.

Neither realism nor romance furnishes a more striking and picturesque figure than that of Christopher Columbus. The mystery about his origin heightens the charm of his story. That he came from among the toilers of his time is in harmony with the struggles of our period. Forty-four authentic portraits of him have descended to us, and no two of them are the counterfeits of the same person. Each represents a character as distinct as its canvas. Strength and weakness, intellectuality and stupidity, high moral purpose and brutal ferocity, purity and licentiousness, the dreamer and the miser, the pirate and the puritan, are the types from which we may select our hero. We dismiss the painter, and piercing with the clarified vision of the dawn of the twentieth century the veil of four hundred years, we construct our Columbus.

The perils of the sea in his youth upon the rich argosies of Genoa, or in the service of the licensed rovers who made them their prey, had developed a skillful navigator and intrepid mariner. They had given him a glimpse of the possibilities

BISHOP FOWLER.

SECRETARY OF CEREMONIES CULP.

EX-MAYOR WASHBURNE.

HENRY WATTERSON.

MISS HARRIET MONROE.

GEN. MILES.

of the unknown, beyond the highways of travel, which roused an unquenchable thirst for adventure and research. The study of the narratives of previous explorers, and diligent questionings of the daring spirits who have ventured far toward the fabled West, gradually evolved a theory, which became in his mind so fixed a fact, that he could inspire others with his own passionate beliefs. The words, "that is a lie," written by him on the margin of nearly every page of a volume of the travels of Marco Polo, which is still to be found in a Genoese library, illustrated the scepticism of his beginning, and the first vision of the new world the fulfillment of his faith.

To secure the means to test the truth of his speculations, this poor and unknown dreamer must win the support of kings and overcome the hostility of the church. He never doubted his ability to do both, though he knew of no man living who was so great in power, or lineage, or learning that he could accomplish either. Unaided and alone he succeeded in arousing the jealousies of the sovereigns and dividing the councils of the ecclesiastics. "I will command your fleet and discover for you new realms, but only on condition that you confer on me hereditary nobility, the Admiralty of the Ocean, and the vice-royalty and one-tenth the revenues of the New World," were his haughty terms to King John of Portugal. After ten years of disappointment and poverty, subsisting most of the time upon the charity of the enlightened monk of the Convent of Rabida, who was his unfaltering friend, he stood before the throne of Ferdinand and Isabella, and rising to imperial dignity in his rags, embodied the same royal conditions in his petition. The capture of Grenada, the expulsion of Islam from Europe and the triumph of the Cross aroused the admiration and devotion of Christendom. But this proud beggar, holding in his grasp the potential promise and dominion of Eldorado and Cathay, divided with the Moslem surrender the attention of sovereigns and bishops. France and England indicated a desire to hear his theories and see his maps, while he was still a suppliant at the gates of the camp of Castile and Aragon, the sport of its courtiers and the scoff of its confessors. His unshakable faith that Christopher Columbus was commissioned from Heaven, both by his name and by Divine command, to carry "Christ across the sea" to new continents and pagan peoples, lifted him so far above the discouragements of an empty purse and a contemptuous court that he was proof against the rebuffs of fortune or of friends. To conquer the prejudices of the clergy, to win the approval and financial support of the state, to venture upon that unknown ocean, which, according to the beliefs of the age was peopled with demons and savage beasts of frightful shape, and from which there was no possibility of return, required the zeal of Peter the Hermit, the Chivalric courage of the Cid and the imagination of Dante. Columbus belonged to that high order of Cranks who confidently walk where "angels fear to tread," and often become the benefactors of their country, or their kind.

It was a happy omen of the position which woman was to hold in America, that the only person who comprehended the majestic scope of his plans, and the invincible qualities of his genius, was the able and gracious Queen of Castile. Isabella alone of all the dignitaries of that age, shares with Columbus the honors of

his great achievement. She arrayed her kingdom and her private fortune behind the enthusiasm of this mystic mariner, and posterity pays homage to her wisdom and faith.

The overthrow of the Mahommedan power in Spain would have been a forgotten scene, in one of the innumerable acts in the grand drama of history, had not Isabella conferred immortality upon herself, her husband and her dual crown by her recognition of Columbus. The devout spirit of the Queen, and the high purpose of the explorer inspired the voyage, subdued the mutinous crew, and prevailed over the raging storms. They covered with the divine radiance of religion and humanity, the degrading search for gold and the horrors of its quest, which filled the first century of conquest with every form of lust and greed.

The mighty soul of the great Admiral was undaunted by the ingratitude of Princes, and the hostility of the people, by imprisonment and neglect. He died as he was securing the means, and preparing a campaign for the rescue of the Holy Sepulchre at Jerusalem from the infidel. He did not know what time has revealed, that while the misson of the crusades, of Godfrey of Bouillon and Richard of the Lion Heart, was a bloody and fruitless romance, the discovery of America was the salvation of the world. The one was the symbol, the other the spirit; the one death, the other life. The tomb of the Savior was a narrow and empty vault, precious only for its memories of the supreme tragedy of the centuries, but the new continent was to be the home and temple of the living God.

The rulers of the Old World began with partitioning the new. To them the discovery was expansion of empire and grandeur to the throne. Vast territories, whose properties and possibilities were little understood, and whose extent was greater than the kingdoms of the sovereigns, were the gifts to court favorites, and the prizes of royal approval. But individual intelligence and independent conscience found here haven and refuge. They were the passengers upon the caravels of Columbus, and he was unconsciously making for the port of civil and religious liberty. Thinkers, who believed men capable of higher destinies and larger responsibilities, and pious people who preferred the Bible to that union of church and state where each serves the other for the temporal benefit of both, fled to these distant and hospitable lands from intolerable and hopeless oppression at home. It required three hundred years, for the people thus happily situated, to understand their own powers and resources, and to break bonds which were still reverenced, or loved no matter how deeply they wounded, or how hard they galled.

The nations of Europe were so completely absorbed in dynastic difficulties, and devastating wars, with diplomacy and ambitions, that they neither heeded nor heard of the growing democratic spirit, and intelligence in their American colonies. To them, these colonies were sources of revenue, and they never dreamed that they were also schools of liberty. That it exhausted three centuries under the most favorable conditions for the evolution of freedom on this continent, demonstrates the tremendous strength of custom and heredity when sanctioned and sanctified by religion. The very chains which fettered became inextricably interwoven with the habits of life, the associations of childhood, the tenderest ties of the family, and

the sacred offices of the Church from the cradle to the grave. It clearly proves that if the people of the Old World and their descendants had not possessed the opportunities afforded by the New for their emancipation, and mankind had never experienced and learned the American example, instead of living in the light and glory of nineteenth century conditions, they would still be struggling with mediæval problems.

The northern continent was divided between England, France and Spain, and the southern between Spain and Portugal. France wanting the capacity for colonization, which still characterizes her, gave up her western possessions and left the English, who have the genius of universal empire, masters of North America. The development of the experiment in the English makes this day memorable. It is due to the wisdom and courage, the faith and virtue of the inhabitants of this territory that government of the people, for the people and by the people was inaugurated, and has become a triumphant success. The Puritan settled in New England and the Cavalier in the South. They represent the opposites of spiritual and temporal life and opinions. The process of liberty liberalized the one and elevated the other. Washington and Adams were the new types. There union in a common cause gave the world a Republic both stable and free. It possessed conservatism without bigotry, and liberty without license. It founded institutions strong enough to resist revolution, and elastic enough for indefinite extension to meet the requirements in government of ever enlarging areas of population, and the needs of progress and growth.

The Mayflower with the Pilgrims, and a Dutch ship laden with African slaves, were on the ocean at the same time, the one sailing for Massachusetts, and the other for Virginia. This company of saints, and first cargo of slaves, represented the forces which were to peril and rescue free government. The slaver was the product of commercial spirit of Great Britain, and the greed of the times to stimulate production in the colonies. The men who wrote in the cabin of the Mayflower the first charter of freedom, a government of just and equal laws, were a little band of protestants against every form of injustice and tyranny. The leaven of their principles made possible the Declaration of Independence, liberated the slaves, and founded the free commonwealths which form the Republic of the United States.

Platforms of principles, by petition, or protest, or statement, have been as frequent as revolts against established authority. They are part of the political literature of all nations. The Declaration of Independence proclaimed at Philadelphia, July 4, 1776, is the only one of them which arrested the attention of the world when it was published, and has held its undivided interest ever since. The vocabulary of the equality of man had been in familiar use by philosophers and statesmen for ages. It expressed noble sentiments, but their application was limited to classes or conditions. The masses care little for them nor remembered them long. Jefferson's superb crystallization of the popular opinion, "all men are created equal, that they are endowed by their Creator with certain inalienable rights, that among these are life, liberty and the pursuit of happiness," had its force and effect

of being the deliberate utterance of the people. It swept away in a single sentence kings and nobles, poets and prelates. It was Magna Charta, and the Petition of Rights planted in the virgin soil of the American wilderness, and bearing richer and riper fruit. Under its vitalizing influence upon the individual, the farmer left his plow in the furrow, the lawyer his bench, to enlist in the patriotic army. They were fighting for themselves and their children. They embodied the idea in their constitution, in the immortal words with which that great instrument of liberty and order began: "We, the people of the United States, do ordain."

The scope and limitations of this idea of freedom have neither been misinterpreted nor misunderstood. The laws of nature in their application to the rise and recognition of men according to their mental, moral, spiritual and physical endowments are left undisturbed. But the accident of birth gives no rank and confers no privilege. Equal rights and common opportunity for all have been the spurs of ambition, and the motors of progress. They have established the common schools, and built the public libraries. A sovereign people have learned and enforced the lesson of free education. The practice of government is itself a liberal education. People who make their own laws need no law-givers. After a century of successful trial, the system has passed the period of experiment, and its demonstrated permanency and power are revolutionizing the governments of the world. It has raised the largest armies of modern times for self preservation, and at the successful termination of the war returned the soldiers to the pursuits of peace. It has so adjusted itself to the pride and patriotism of the defeated, that they vie with the victors in their support and enthusiasm for the old flag and our common country. Imported anarchists have preached their baleful doctrines, but have made no converts. They have tried to inaugurate a reign of terror under the banner of the violent seizure and distribution of property, only to be defeated, imprisoned and executed by the law made by the people and enforced by juries selected from the people, and judges and prosecuting officers elected by the people. Socialism finds disciples only among those who were its votaries before they were forced to fly from their native land, but it does not take root upon American soil. The State neither supports nor permits taxation to maintain the Church. The citizen can worship God according to his belief and conscience, or he may neither reverence nor recognize the Almighty. And yet religion has flourished, churches abound, the ministry is sustained, and millions of dollars are contributed annually for the evangelization of the world. The United States is a Christian country a living and practical Christianity is the characteristic of the people.

Benjamin Franklin, philosopher and patriot, amused the jaded courtiers of Louis XIV. by his talks about liberty, and entertained the scientists of France by bringing lightning from the clouds. In the reckoning of time, the period from Franklin to Morse, and from Morse to Edison, is but a span, and yet it makes a material development as marvelous as it has been beneficient. The world has been brought into contact and sympathy. The electric current thrills and unifies the people of the globe. Power and production, highways and transports have been so multiplied and improved by inventive genius, that within the century of our inde-

CARDINAL GIBBONS

pendence sixty-four millions of people have happy homes and improved conditions within our borders. We have accumulated wealth far beyond the visions of the Cathay of Columbus, or the El Dorada of De Sota. But the farmers and freeholders, the savings banks and shops illustrate its universal distribution. The majority are its possessors and administrators. In housing and living, in the elements which make the toiler a self-respecting and respected citizen in avenues of hope and ambition for children, in all that gives broader scope and keener pleasure to existence, the people of this republic enjoy advantages far beyond those of other lands. The unequaled and phenomenal progress of the country has opened wonderful opportunities for maklng fortunes, and stimulated to madness the desire and rush for the accumulation of money. Material prosperity has not debased literature nor debauched the press; it has neither paralyzed nor repressed intellectual activity. American science and letters have received rank and recognition in the older centers of learning. The demand for higher education has so taxed the resources of the ancient universities, as to compel the foundation and liberal endowment of colleges all over the union. Journals remarkable for their ability, independence and power, find their strength, not in the patronage of government, or the subsides of wealth, but in the support of a nation of newspaper readers. The humblest and poorest person, has in periodicals whose price is counted in pennies, a library larger, fuller and more varied, than was within reach of the rich in the time of Columbus.

The sum of human happiness has been infinitely increased by the millions from the Old World who have improved their conditions in the New, and the returning tide of lesson and experience has incalculably enriched the Fatherlands. The divine right of kings has taken its place with the instruments of mediæval torture among the curiosities of the antiquary. Only the shadow of kingly authority stands between the government of themselves by themselves and the people of Norway and Sweden. The union in one empire of states of Germany is the symbol of Teutonic power, and the hope of German liberalism. The petty despotisms of Italy have been merged into a nationality which has centralized its authority in its ancient capitol on the hills of Rome. France was rudely roused from the sullen submission of centuries to intolerable tyranny by her soldiers returning from service in the American Revolution. The wild orgies of the reign of terror were the revenges and excesses of a people who had discovered their power but were not prepared for its beneficient use. She fled from herself into the arms of Napoleon. He, too, was a product of the American experiment. He played with kings as with toys, and educated France for liberty. In the process of her evolution from darkness to light she tried Bourbon, and Orleanist and the third Napoleon, and cast them aside. Now in the fullness of time, and through the training in the school of hardest experience, the French people have reared and enjoy a permanent republic. England of the Mayflower and of James the Second, England of George the Third and of Lord North, has enlarged suffrage and is to-day animated and governed by the democratic spirit. She has her throne, admirably occupied by one of the wisest of sovereigns and best of women, but it would not survive one dissolute

and unworthy successor. She has her hereditary peers, but the House of Lords will be brushed aside the moment it resists the will of the people.

The time has arrived for both a closer union, and greater distance between the Old World and the New. The former indiscriminate welcome to our prairies, and the present invitation to these palaces of art and industry, mark the passing period. Unwatched and unhealthy immigration can no longer be permitted to our shores. We must have a national quarantine against disease, pauperism and crime. We do not want candidates for our hospitals, our poorhouses or our jails. We cannot admit those who come to undermine our institutions and subvert our laws. But we will gladly throw wide our gate for, and receive with open arms, those who by intelligence and virtue, by thrift and loyalty, are worthy of receiving the equal advantages of the priceless gift of American citizenship. The spirit and object of this exhibition are peace and kinship.

Three millions of Germans, who are among the best citizens of the Republic, send greeting to the Fatherland their pride in its glorious history, its ripe literature its traditions and associations. Irish, equal in number to those who still remain upon the Emerald Isle, who have illustrated their devotion to their adopted country on many a battlefield fighting for the Union and its perpetuity, have rather intensified than diminished their love for the land of the shamrock, and their sympathy with the aspirations of their brethren at home. The Italian, the Spaniard, and the Frenchman, the Norwegian, the Swede, and the Dane, the English, the Scotch, and the Welsh, are none the less loyal and devoted Americans, because in this congress of their kin, the tendrils of affection draw them closer to the hills and valleys, the legends and the loves associated with their youth.

Edmund Burke, speaking in the British Parliment with prophetic voice, said: "A great revolution has happened—a revolution made, not by chopping and changing of power in any of the existing States, but by the appearance of a new State, of a new species, in a new part of the globe. It has made as great a change in all the relations and balances and gravitations of power as the appearance of a new planet would in the system of the solar world." Thus was the humiliation of our successful revolt tempered to the motherland by pride in the State created by her children. If we claim heritage in Bacon, Shakespeare and Milton, we also acknowledge that it was for liberties guaranteed Englishmen by sacred charters our fathers triumphantly fought. While wisely rejecting throne and caste and privilege and an established church in their new-born state, they adopted the substance of English liberty and the body of English law. Closer relations than with other lands, and a common language rendering easy interchanges of criticisms and epithet, sometimes irritate and offend, but the heart of Republican America beats with responsive pulsations to the hopes and aspirations of the people of Great Britain.

The grandeur and beauty of this spectacle are the eloquent witnesses of peace and progress. The Parthenon and the cathedral exhausted the genius of the ancient, and the skill of the mediæval architects, in housing the statue or spirit of Deity. In their ruins or their antiquity they are mute protests against the

merciless enmity of nations, which forced art to flee to the altar for protection The United States welcomes the sister republics of the southern and northern continents, and the nations and peoples of Europe and Asia, of Africa and Australia, with the products of their lands, of their skill and of their industry to this city of yesterday, yet clothed with loyal splendor as the Queen of the Great Lakes. The artists and architects of the country have been bidden to design and erect the buildings which shall fitly illustrate the height of our civilization and the breadth of our hospitality. The peace of the world permits and protects their efforts in utilizing their powers for man's temporal welfare. The result is this Park of Palaces. The originality and boldness of their conceptions and the magnitude and harmony of their creations are the contributions of America to the oldest of the arts and the cordial bidding of America to the peoples of the earth to come and bring the fruitage of their age to the boundless opportunities of this unparalled exhibition.

If interest in the affairs of this world are vouchsafed to those who have gone before, the spirit of Columbus hovers over us to-day. Only by celestial intelligence can it grasp the full significance of this spectacle and ceremonial.

From the first century to the fifteenth counts for little in the history of progress, but in the period between the fifteenth and twentieth is crowded the romance and reality of human development. Life has been prolonged and its enjoyment intensified. The powers of the air and water, the resistless forces of the elements which in the time of the discoverer were the visible terrors of the wrath of God have been subdued to the service of man. Art and luxuries which could be possessed and enjoyed only by the rich and noble, the works of genius which were read and understood by the learned few, domestic comforts and surroundings beyond the reach of lord or bishop now adorn and illumine the homes of our citizens. Serfs are sovereigns and the people are kings. The trophies and splendors of their reign are commonwealths, rich in every attribute of great states, and united in a republic whose power and prosperity, and liberty and enlightenment are the wonder and admiration of the world.

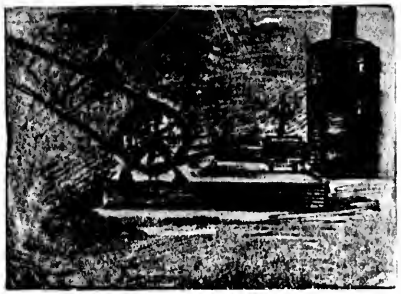
All hail Columbus, discoverer, dreamer, hero and apostle. We, here, of every race and country, recognize the horizon which bounded his vision and the infinite scope of his genius. The voice of gratitude and praise for all the blessings which have showered upon mankind by his adventure is limited to no language, but is uttered in every tongue. Neither marble nor brass can fitly form his statue. Continents are his monuments, and unnumbered millions, past, present and to come, who enjoy in their liberty and their happiness the fruits of his faith, will reverently guard and preserve from century to century his name and fame.

Great applause followed the sublime effort, at the cessation of which Cardinal Gibbons invoked the divine blessing. Then Rev. H. C. McCook, of Philadelphia, delivered the benediction, and a national salute closed the dedicatory ceremonies.

That night there were three sets of fireworks on the north, south and west sides, which were seen and enjoyed by half a million or more people. Chicago

never before witnessed such pyrotechnical displays. The upward rays of the search-lights at Jackson Park were also visible all over the city.

On the night of October 25th, President Palmer's banquet at Chicago practically closed the festivities of Dedication. The guests included national commissioners, local directors, officers of the Fair, military men, foreign commissioners and professional entertainers, whose presence lent enjoyment to the occasion.



COLUMBIAN ARCH, FIFTH AVENUE, NEW YORK, OCTOBER 22, 1892.

PART V.

OFFICIAL OPENING OF THE EXPOSITION.

CHAPTER I.

THE GREAT REVIEW ON THE HUDSON RIVER.

Rendezvous of War Vessels of Many Nations at Fortress Monroe—The Caravels and the Infanta Isabella—The Fleet at Sandy Hook—Review n the Hudson River—The Most Spectacular and Impressive Marine Event of Any Age—A Mi lion f Peopl Present—Mrs. Cleveland on the Dolphin—Description of the Caravels—The trength of the United States Navy Never Shown to Better Advantage—-The British Cruisers Represented the Best Attainments in Marine Construction —How France and Germany Engaged in Friendly Salutations—Vessels from the Baltic, the Mediterranean and South American Waters.

REFACING the official opening of the Exposition, and leading straight up to that auspicious occasion, was the arrival off Fortress Monroe, during the month of April, 1893, of the crack warships of many nations (along with the caravels in the wake of the Spanish warship "Infanta Isabella"), and the subsequent review on the Hudson River, which took place on Thursday, the 28th, and which will long rank as the grandest and most imposing marine event of any day, defining, as it did, an epoch in the wondrous story of humanity, and which was speedily followed by a marvelous succession of gigantic pictures at Jackson Park—themselves no insignificant tribute to the memory that called forth the Exposition.

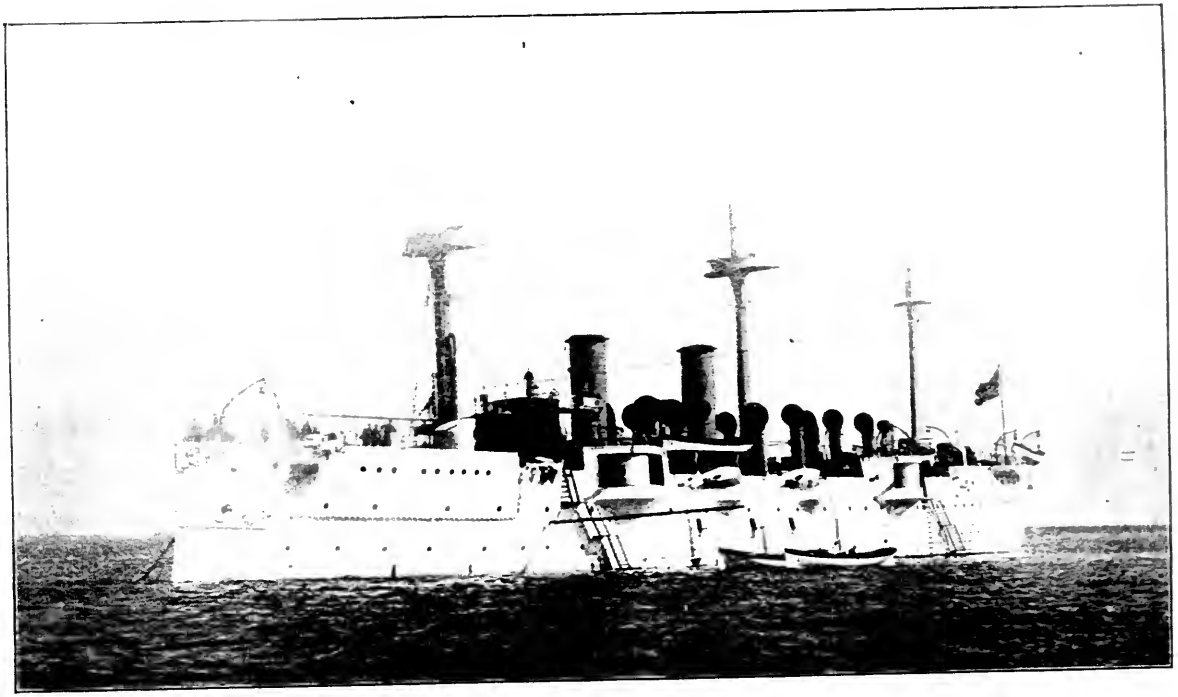
The fleet left Fortress Monroe on Monday, the 24th, and arrived in the lower bay of New York on the Tuesday following. The United States steamship Dolphin, with the Secretary of the Navy on board, was the first of the reviewing fleet to arrive. In an hour afterward fortress and vessel thundered out the announcement of the arrival of the peaceful fleet that a million Americans were awaiting, and in a short time the great naval procession passed Sandy Hook in the presence of a vast multitude, the flagship of Admiral Gherardi in the lead and followed by the Atlanta, Bancroft, Bennington, Baltimore, Chicago, Yorktown, Charleston, Vesuvius and Concord; the Dutch ship Vanspey K.; the German Kaiserin Augusta and See Adler; the English flagship Blake, with the Magicienne, Tartar and Australia; the Russian cruiser General Admiral and Rynda; the French Arethuse, Jean Bart and Hussard; and the Italian Etna and Giovanna Bausin.

The fleet when first sighted was moving along at the rate of fully ten knots an hour in double column and perfect alignment. The distances were marked, 300 yards between each ship, with 600 yards between each squadron. The big white flagship Admiral Gherardi, the Philadelphia, headed the port column; the huge black British cruiser Blake, Admiral Hopkins' flagship, led the starboard column, in accordance with the program. As the Philadelphia in the lead neared the Sandy Hook lightship, at 1:50 p. m., the fog whistle of the latter gave a series of welcoming screams, but the monster white flagship swung around in majestic silence and crossing the bar and entering Gedney's Channel set the pace at a good ten and a half knots an hour. The Philadelphia then signaled the fleet to proceed without reference to formation. The vessels of the starboard column slowed down and allowed all the American fleet to round the lightship first. Then the Blake and the other Britishers followed, the squadrons of each column alternating until all had safely rounded and entered the channel. The big guns of the Miantonomah boomed a welcome, but the Hook was passed in silence. The leading vessels of the fleet turned to the southwest and entered the main ship channel.

In the channel the Philadelphia slackened speed so as to allow the other vessels to catch up, and the entire fleet proceeded in single file and impressive silence up the bay to the anchorage grounds, which Capt. Rogers and his aides had selected. Gravesend Bay was reached at 3:30, and the Philadelphia opened the salutes by firing fifteen guns in honor of the Russian Admiral and his flagship the Dimitri Donskoi, the band on board the Philadelphia playing the Russian national air. The Russian promptly acknowleged the salute. At 3:35 the Philadelphia fired one gun as a signal to come to anchor, and the Newark passed the signal to the other vessels.

The voyage of 270 miles from Fortress Monroe to the anchorage had been a most delightful but uneventful one. When the fleet sailed out of Hampton Roads it consisted of twenty-seven ships formed in two columns. In this position and with the dark bottle green torpedo Cushing, tossing like a cork under the port quarter o the Philadelphia, the combined fleet passed out to sea. The United States vessels kept in excellent line and position. Admiral Hopkins signaled his compliments to Admiral Gherardi. The vessels kept steadily out to sea until Cape Henry lighthouse was some distance astern, and then the Philadelphia flew combinations of signals. "Prepare to change your course," said the silent flags, and a few minutes later the bows of the Philadelphia and the Blake, instead of being headed straight across the Atlantic, were turned northwesterly in the direction of New York harbor. Like sheep in a pasture all the other vessels, as soon as they reached the place where the leaders had turned, also swung around.

The starboard column became demoralized soon after the long, low sand hills of Cape Henry had disappeared from sight. The Brazilians were speedily left in the rear. The Italians were also mere specks upon the horizon, but a thickness of smoke above their dark hulls told how gallantly they were striving to keep in the long procession. Shortly after 2 o'clock in the afternoon the Jean Bart, evidently weary of following the Hussard at a snail's pace, sheered off to the right



United States Protected Cruiser "Philadelphia."

and then ran ahead of the little gunboat, taking a position directly astern of the Arethuse.

All this time the Blake kept abreast of the Philadelphia and the Australia; the Magicienne and Tartar followed so evenly and steadily that an iron bar connecting them could not have secured greater precision of movement.

The fleet sailed in double column during the afternoon and until evening quarters were sounded. Signals were then made for each column to double. The Chicago, with the ships astern, moved up abreast of the Philadelphia. The Russian, French and Italian ships went around to the right of the English squadron until they were parallel with it, and then, four columns abreast, the ships settled down for an all-night run.

There was a premonition of rain when morning dawned, the sky was overcast with dull clouds, and there was a thickness along the horizon which sailors would call a streak of dirty weather. The ships of the United States were well in line, the Kaiserin Augusta and the See Adler were close up, and the Dutchman was on the extreme left. On the right the Englishmen were trailing along one after the other, as precise and regular as ever. The two Russians were far on the outside, as if they were starting on a cruise for the missing admiral. The Italians were a squadron to themselves, and the French were bunched together close by. The Hussard had used sail during the night and had fallen in behind the Jean Bart.

At 10 o'clock Tuesday morning the American and foreign vessels were signaled from the Philadelphia to fall into line similar to that which they presented on leaving Hampton Roads. This evolution was accomplished most creditably not only by the United States vessels, which might have been expected to act well together, but also by the foreign men-of-war. The Italians did not fall in behind the Frenchmen, but remained off to one side. In this formation the procession of ships headed for Sandy Hook. Just outside the lightship and when Admiral Gherardi was discussing his noonday breakfast the Argentine cruiser Nueve de Julio appeared in sight and made its presence known by a salute of fifteen guns to the admiral's flag. As soon as the salute had been returned the fleet was signaled to push into the bay in single column. The flagship and Admiral Benham's squadron steamed ahead, then the Englishmen fell in; then followed Admiral Walker's squadron, the Russians, the Hollander, the Frenchmen, the Germans and the Italians in the order named. The Brazilian fleet arrived in the bay at 5 o'clock and took its place at the foot of the starboard column.

Thursday was a thunderous day on the Hudson. A million of people, including the President of the United States, saw the most amazing collection of modern war vessels ever witnessed in any harbor. The day was less radiant than the multitude. Fog and rain conspired to play mischief with ship and spectator. Grover Cleveland looked out of his window at the Victoria and remarked to Lamont, his War Secretary, that there was no scarcity of water. This was interpreted as a reference to the remarks of the two southern governors. Presently the fog lifted, but no sunshine came to embellish the scene. But it was a grand sight, nevertheless. Stretching north and south was the restless sheet of water reaching in from the

ocean. Holding the center of this great body were two lines of war vessels standing as regular as soldiers.

To the west of the lines a thousand boats of all descriptions jostled and pushed each other, and filled the air with discordant sounds. The shore lines, the jumble of buildings, the uplifts of the Jersey coast were spotted and specked, and browned with shifting masses of people. From boats and shore and ragged wharf-lines, confusion of colors rose and fell with the puffing winds.

Down the center of the mighty aisle made by the anchored warships moved three vessels, great because of their cargoes. On the first was the President of the United States and Mrs. Cleveland, on the second were the diplomats representing all the powers of earth, and on the third were many of the senators and representatives of the United states. As the snow-white yacht floating at its fore the eagle flag of the president passed each warship, long arms of yellow fire reached out and deafening sounds went echoing and rumbling against the highlands to the west. The yard arms of the old-fashioned vessels were filled with sailors, who stood in silent rows up in the dizzy heights like so many carved figures. As the smoke puffs were caught by the wind and lifted away, as the bellowing of the guns made the whole picture tremble, a riot of steam whistling broke loose, and from every point on shore and in the scramble of boats to the west there could be seen waving hats and tossing handkerchiefs.

Even in the noise and fury of it all the meaning was apparent. In these two lines were English, Russian, German, French, Spanish, Italian, Brazilian, Hollander, Argentine and American warships gathered in friendly jubilee, and each carried the American flag at its fore.

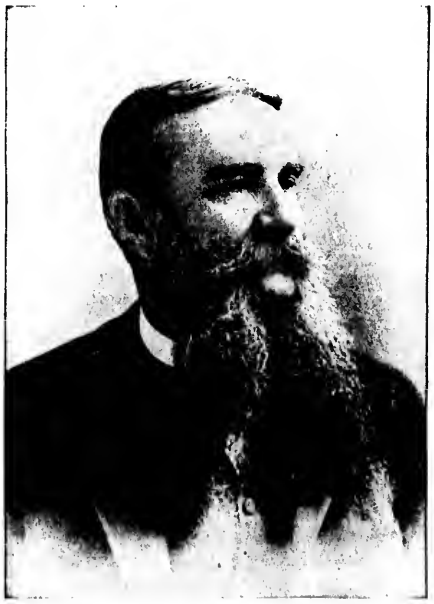
Immediately after the review President Cleveland gave a reception, which was largely attended and was a brilliant affair and lasted until 4:40 P. M. Then his flag was hauled down on the Dolphin and he went ashore at Ninety-sixth street, and at a signal from the Philadelphia the guns of the entire fleet belched forth, simultaneously. Each vessel fired twenty-one shots, and the roar that ensued was deafening. When it subsided smoke hung in heavy clouds over the river, and the Jersey shore was invisible for some minutes. The Admirals turned to their ships, the steamboats which still lingered with passengers desirous of seeing all of the great noval pageant went to their piers, and the ceremonies were over.

The caravels which participated in the pageant shared evenly in the honor accorded the great thunderers. They are almost exact imitations of the craft composing the original fleet of discovery. The largest, the Santa Maria, commanded by the great Columbus himself, is 75 feet long. She has a beam of 27 feet and a depth of about 13 feet amidship, and is much smaller than a great many pleasure yachts to be found in our waters. Her hull is short, wide and very high as compared with the ships of to-day, very full below, with short runs, convex knees and flat bottom. The ends overhang considerably, being sufficiently broad to have large displacement, thus enabling them to bear the great weight of the castles. The castles in fact look as though they made up the greater part of the 127.57 tons. The sides of the boat have quite a bulge. The gunwale is high, broad and thick.

REAR ADMIRAL BANCROFT GHERARDI, COMMANDER OF THE "PHILADELPHIA."

Strik[illegible]n from stem to stern, securing the frame with the side bracers called "rider[illegible] For the purpose of strengthing it vertically the bows are full and round. The s[illegible]n is entirely flat in the shape of a shield, as it was formerly called, with a large [illegible], called the helm port, above the first transom, through which the tiller passes. The rudder is a broad blade. The boat has only one deck. Her rigging consists of three masts, main, fore and mizzen. She is painted black with white trimmings.

The Pinta and Nina are smaller than the Santa Maria, but of the same style of architecture and altogether very ridiculous looking to folks who are used to seeing modern boats. The Pinta is about ten tons heavier than the Nina. The Pinta is 52 feet long on her keel, 65 feet long on her main deck and has 23 feet breadth of beam. The Nina is 46 feet long on her keel, 50 feet long on her main deck and has 18 feet breadth of beam. They arrived off the Exposition grounds early in July, and have been one of the main attractions. The Viking ship arrived and took its place near the caravels on the 12th of July, amidst a vast concourse of people, and Captain Anderssen was given an ovation.



REAR ADMIRAL WALKER, COMMANDER OF THE "CHICAGO."

DIRECTOR OF WORKS D. H. BURNHAM ON THE EARLY WORK.

AFTER the selection of Chicago by the act of Congress, in April, 1890, as the place for holding the World's Columbian Exposition, one of the first steps taken was the selection of Messrs. F. L. Olmsted & Co., as consulting landscape architects, in August, 1890. In the following September, Messrs. Burnham & Root were appointed consulting architects and Mr. A. Gottlieb consulting engineer. Messrs. Burnham & Root resigned in November, Mr. Burnham being appointed Chief of Construction and Mr. Root Consulting Architect. The necessity for early determination as to the methods by which the great buildings should be designed immediately after the designation of Jackson Park as the site for the Exposition was apparent. The Chief of Construction then recommended the direct appointment of architects rather than that the designs be secured by competition. This method was finally agreed upon and the following gentlemen were appointed by the Chief of Construction:

Mr. Richard M. Hunt, of New York, as architect of the Administration Building; Messrs Adler & Sullivan, of Chicago, Transportation Building; Messrs. McKim, Mead & White, of New York, Agricultural Building; Mr. W. L. V. Jenney, of Chicago, Horticultural Building; Mr. George B. Post, of New York, Manufactures and Liberal Arts Building; Mr. Henry Ives Cobb, of Ghicago, Fisheries Building; Messrs. Peabody & Stearns, of Boston, Machinery Hall; Messrs. Burling & Whitehouse of Chicago, Venetian Village; Messrs. Van Brunt & Howe, of Kansas City, Electrical Building; Messrs. Holabird & Roche, of Chicago, Stock Ring and Pavilion; Mr. S. S. Beman, of Chicago, Mines and Mining Building. The Venetian Village was abandoned, and Mr. Whitehouse (whose partnership with Mr. Burling had been dissolved by death) was selected as the architect of the Choral Building. Mr. Augustus St. Gaudens has acted in an advisory capacity on sculpture, fountains, etc. Mr. Charles B. Atwood was made Designer-in-Chief, and is the architect of the following buildings: Galleries of Fine Arts, Peristyle Music Hall and Casino, Railway Terminal Station, guard stations, fire stations, balustrades, bridges, rostral columns, and many other important works. In addition to this his duties have included the examination of each of the plans submitted for foreign and State buildings.

Pursuant to the call issued, the gentlemen first selected met at Chicago in January, 1891. Mr. Root was at that time absent from the city attending a meeting of the American Institute of Architects, of which he was secretary. He returned to Chicago upon Saturday, January 10, and was present for an hour or two at the

conference then in session. Upon the following Monday he was stricken down with pneumonia and died upon the succeeding Thursday, while only upon the threshold of the great work which he had undertaken. The duties of Consulting Architect then fell upon the Chief of Construction, as did those of Chief Engineer, upon the resignation of the latter in August, 1891. The sketches which had been prepared by the various architects, being in due course accepted by the World's Columbian Exposition and the World's Columbian Commission, in March, 1891, the permanent organization of the working forces was vigorously prosecuted. Mr. Ernest R. Graham was appointed Assistant Chief of Construction; Mr. William Prettyman, Director of Color; Mr. Frederick Sargent, Electrical Engineer; Mr. J. C. Slocum, Mechanical Engineer; Mr. E. G. Nourse, Engineer of Railroads; Mr. William S. MacHarg, Engineer of Water Supply, Sanitation, and Fire Protection; Mr. J. W. Alvord, Engineer of Grades and Surveys; and Mr. Dion Geraldine, General Superintendent. Mr. Slocum resigned as Mechanical Engineer in the early spring of 1891, and Mr. Frederick Sargent then assumed charge of the mechanical as well as the electrical plants. Mr. Prettyman resigned in May, 1891, and was succeeded by Mr. Francis D. Millet as Director of Decoration. In competition restricted to women alone Miss Sophia G. Hayden was chosen as the architect of the Woman's Building and has executed the design and supervised the preparation of plans for this structure. Col. Edmund Rice, United States army, was, in the spring of 1892, appointed Commandant, and has organized the Columbian Guard. Mrs. M. H. Holcomb is Master of Transportation, in charge of the important duties indicated by his title.

At the time of this organization, Jackson Park was, with the exception of a small portion which had been improved by the South Park Commission, covered with marshes and wild oak ridges. It was necessary that this vast area be reclaimed, and in twenty months transformed from a desolate waste into a park highly improved and embellished with all that skilled designers could suggest; that upon the stately terraces a dozen or more palaces of great extent be constructed, and that they be supplemented by over 200 other buildings, some of which are almost of the importance and size of the main structures; that great canals, basins, lagoons, and islands be formed; that extensive docks, bridges and towers be constructed. It was necessary that a standard of excellence be attained which would place the work upon an equality with the monuments of other ages—it meant, in short, that an organization be quickly formed which would associate together the ablest architects, painters and sculptors of the world. Many of the great problems to be solved were new, no precedent having been established for the guidance of those assuming this great responsibility.

For the preparation of the grounds alone it was necessary to handle about 1,500,000 cubic yards of material. This was secured by the cutting of canals, lagoons and other waterways, the earth taken therefrom being utilized in elevating the grounds and establishing the proper grades. The main buildings of the Fair cover a ground area of 5,382,000 square feet, or over 123 acres; other buildings, 1,155,000 square feet, or about 26 acres; the State buildings, 420,000 square feet;

foreign buildings, about 290,000 square feet; concession buildings, about 1,050,000, making a grand total area of the buildings of the Fair of about 190 acres.

To mention, even in the briefest manner, the principal details of operation, both in matters artistic and mechanical, would consume greater space and time than I have at my command. I can only add that our work of construction, which but two years ago had not been organized, is now completed.

D. H. Burnham

AUTUMN TWILIGHT.

CHAPTER II.

ARRIVAL OF MR. CLEVELAND AND THE DUKE OF VERAGUA.

The President of the United States and the Duke of Veragua Come to Chicago to be Present at the Opening of the Exposition—They Are Met at the Depot by Distinguished People and Escorted to their Hotels by Military—Great Turnouts All Along the Line—How Mr. Cleveland Spent Sunday in Chicago—He Attends Church in the Morning and Christens a Grandchild of Secretary Gresham in the Afternoon—The Duke Attends Mass and Receives Calls.

UNDAY, the 30th of April, 1893, the threshold of the Opening Day of the Exposition, was itself a happy interlude between the International Naval Review and the premier exercises and attractions at Jackson Park on the Monday following. President Cleveland had arrived at Chicago on the 29th and had been received in a manner befitting his high station, and escorted to the Lexington hotel and shown to luxurious apartments prepared with great care and artistic taste. Costly tapestries adorned the walls. Flowers were everywhere—furnished and arranged by "Uncle John Thorpe, except one jardinierre of La France roses, which had been sent by Mrs. Cleveland. There were other roses, and there were lilies of the valley, and hundreds of pansies, Mr. Cleveland's favorite flower.

At 8 o'clock Sunday morning the President, in company with a number of his Cabinet ministers and a few other friends, breakfasted in a private dining room at his hotel. "I feel very friendly with everybody," said Mr. Cleveland, after rising, "and I think I shall go to church, as I have had several invitations."

It had commenced to rain forty-eight hours before, and had never ceased long enough to force a smile from the face of a World's Fair director. It rained so violently and blew so furiously when the President started for the Second Presbyterian church on 20th Street, in company with Secretaries Gresham and Hoke Smith, that it was with difficulty that the trio could avoid a drenching. On arriving the distinguished party was ushered to a pew near the front of the audience-room. The visit of the Presidential party had not been announced, and the church was sparsely filled. While the choir was singing the opening hymn all eyes were directed upon the President, who was attired in his usual black suit, with frock coat, and who maintained a dignified, reserved manner, scarcely looking at any one, but paying close attention to the sermon and the services.

The two members of the Cabinet occasionally exchanged a few whispered

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words with each other, but seldom spoke to the President, and, though they both read the response, he did not.

When the plate was passed Mr. Cleveland quietly laid upon it a two-dollar bill, numbered A1940559, with a picture of Jefferson on the left—correct Jeffersonian principles surely, so the deacon thought. After the close of the service a woman in the audience advanced to the President and shook hands with him, introducing her companion, probably her husband. One or two others shook hands with him as he left the vestibule. Aside from these there were no special demonstrations.

In his prayer the pastor, the Rev. Dr. S. J. McPherson, alluded to the President and others high in authority, invoking special blessings upon them, but otherwise made no reference to the distinguished personage.

The text was from Matthew xiii., 2. The sermon was a clear analysis of true manhood as illustrated by a Christian citizen, the nearest perfection in its resemblance to the character of Christ while on earth. In brief it was as follows:

"The crown of civilization is true manhood. Character is the maker, and safeguard, and measure of all civilization. Our Lord came down in order that he might give to us qualities like his own. Character is an effect and a cause. In all, it is a creation of the past and a creator of the future. Every true citizen, noble man, and true Christian will cherish true conservatism and true progress. False conservatism stifles energy and freezes nerve and heart. False radicalism recklessly assaults, tears up the heart as well as the weeds, and rushes after every new will-o'-the-wisp.

"The treasures of art and sculpture have been kept for us by the conservative cherishing and embalming of history. No character is possible without the energy of the character builder himself. The deadliest thing in human life and the meanest thing is a lie. The value of personal purity is through the force of the word of God in Christ's own shadow. Following after skeptics, cynics, and mysterious leaders like Confucius is agnosticism. Hope and despair are ever ready at hand. Look up to the former and listen not to the latter. Christ is our ideal type of the mixture of those two forces. A life spent in the struggle to promote spiritual character is the only life worthy of man."

On Sunday afternoon the President christened a grand-daughter of Secretary Gresham, and afterward took dinner with Mr. Higinbotham.

The Duke of Veragua, a grandee of Spain, and a descendant of Columbus, accompanied by his family and other distinguished people, also arrived in Chicago on Saturday, April 29th, and was received by President T. W. Palmer, of the Commission, and acting President Ferdinand Peck of the Directory. Shortly after ten in the morning the train carrying the Duke pulled into the Union Depot, and at a proper time and place after he had stepped from the car, Mr. Palmer delivered an address of welcome to which the Duke responded warmly.

Mrs. John A. Logan was at the depot as Chairman of the Ceremonies Committee of the Board of Lady Managers, and she was presented to the Duchess of Veragua, who carried a large bunch of American Beauty roses which had been

handed her at the depot by the Spanish Commissioner to the World's Fair. After Mrs. Logan had been presented to the Duchess and to the wife of Commander Dickinson, who was charged with the itinerary of the ducal party, the procession was formed to the carriages.

President Palmer led the way with the Duke and the cheer that went up as the start was made passed along in a wave line and reached the curbstone before the smiling features of the Duke had appeared above the landing at the top of the steps. Then the cheer increased to a roar that never ceased until the party was safely housed inside the thick walls of the Auditorium. The apartments assigned his grace and suite had been beautifully decorated. The Duke and his family attended mass on the preceeding Sunday and received many callers at their hotel during the afternoon and evening.

[In this connection it may be appropriately stated that in June the Infanta Eulalia, who represents the youthful Spanish ruler, visited Chicago and the Fair, and was received in a fitting manner and handsomely entertained during her stay. She was royally looked after by President Thomas W. Palmer, Mayor Carter Harrison, Messrs. Higinbotham, Potter Palmer—at whose hotel she was a guest—and others. She had a pleasant time, and departed thoroughly delighted with all she had seen and that had been done for her.]

CHAPTER III.

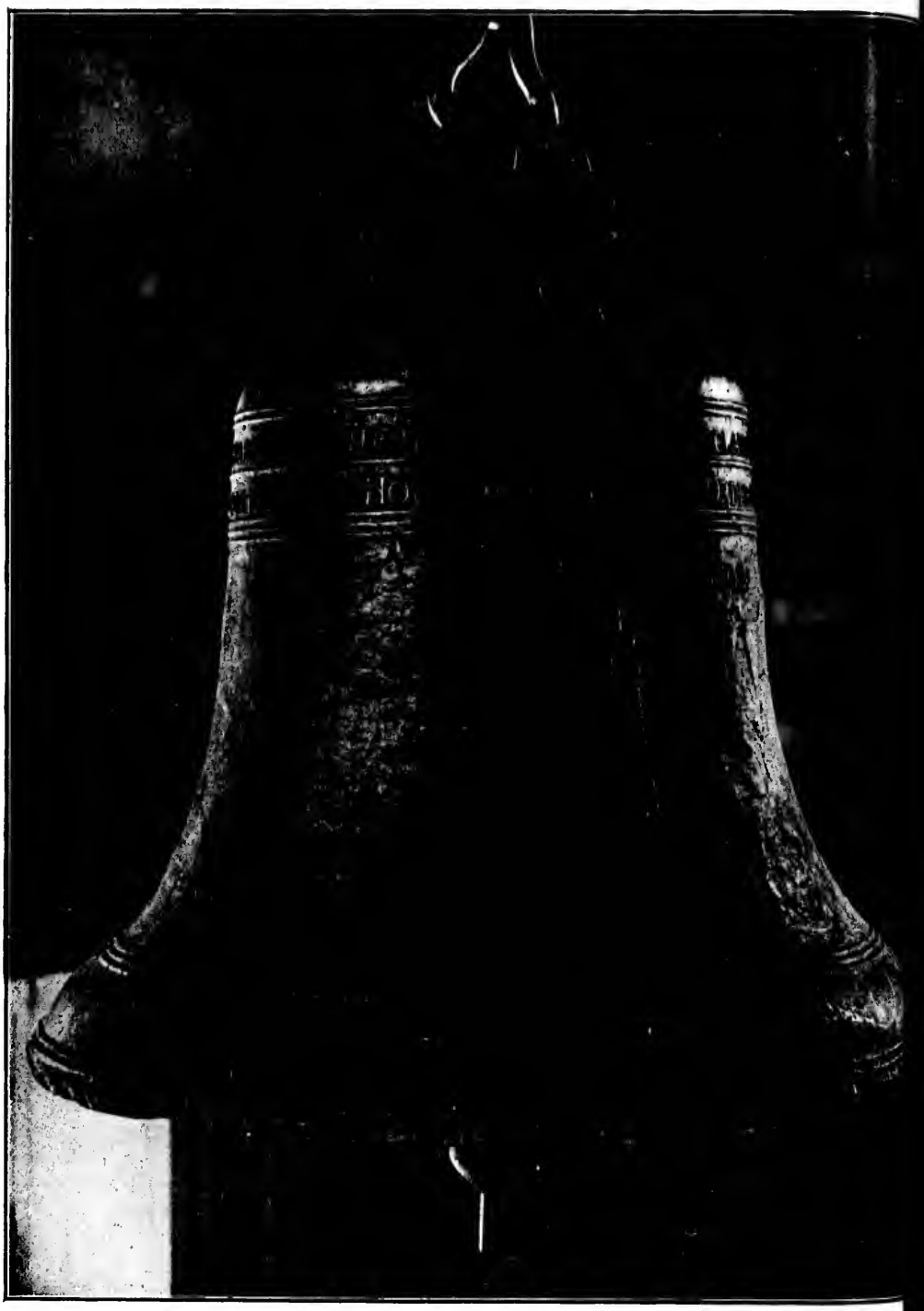
ANOTHER DISTINGUISHED ARRIVAL.

Independence Bell—Its Progress From Philadelphia to Chicago—It Receives an Ovation all the Way—Cannons and Speeches by Day and Bonfires and Red Lights by Night—The Venerable Relic Seen by Great Crowds of People—It Shares the Honorable Welcome Paid to President Cleveland and the Duke of Veragua Upon its Arrival in Chicago—Received by Military and Music and Escorted to Jackson Park by a Procession Two Miles Long—George Lippard's Vivid Picture of the Revolutionary Tones Whose Echoes Have Never Died Away—Its Sounds Still Listened to by the American People.

ONE of the most interesting events connected with the official opening of the Exposition was the trip of the Liberty Bell from Philadelphia and its arrival at Jackson Park. Throughout its entire journey this possibly greatest of all Revolutionary relics was the recipient of profound homage and respect; and the thoroughfare over which it traveled was lighted with bonfires and red and blue lights by night and decorated with flags and bunting by day. At all the towns along its way large numbers of people gathered and made the event occasion for cannonading and speech-making. Attended by all the pomp and ceremony which may well appertain to the transit of this historic heirloom, it left Philadelphia on the morning of April 28, and was carried to Chicago mounted on an open flat car constructed specially for the occasion by the Pennsylvania Railroad company. About the car containing the venerable relic was a nickel fence with thirteen posts, representing the original thirteen states, each post having the name of the state in raised letters on a gilt ball. Thirty-one polished steel bars represented the remaining states. The fence was octagonal in shape and its panels were interlinked in a manner emblematic of the union of the states. The car was attached to a special train conveying the members of the committee, the mayor of Philadelphia, the director of public works and public safety, the city comptroller and others.

It arrived in Chicago on Saturday, the 29th, and was received by a vast multitude, dividing the honor of welcome to President Cleveland and the Duke of Veragua who arrived the same day.

This great bell, weighing 2,080 pounds, was cast by Pass & Stow, Philadelphia, and around it near the top were cast the prophetic words from the book of Leviticus, "Proclaim liberty throughout all the land unto all the inhabitants thereof." Early



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in June, 1753, it was hung in the belfry of the State House in Philadelphia, with no thought of the liberty it would one day proclaim.

Let us look back over the hundred and seventeen years that have passed since this bell rang on that Fourth of July, 1776, and gaze upon the picture of the scene so vividly drawn by George Lippard in his "Annals of the American Revolution."

"Let me paint you a picture upon the canvas of the past.

"It is a cloudless summer day, a clear sky arches and smiles above a quaint old edifice rising among the giant trees, in the center of a wide city. Plain red brick the walls; the windows partly framed in stone; the roof eaves heavy with intricate carvings; the hall door ornamented with pillars of dark stone. Such is the State House, Philadelphia, in the year of our Lord 1776."

"Within the house was Congress assembled. During the session of Congress this summer Richard Henry Lee, of Virginia, moved that *'the reunited colonies are, and ought to be, free and independent States.'* John Adams, of Massachusetts, seconded the motion, and a committee of five was appointed to draw up a declaration of independence. It was Thomas Jefferson that wrote this strong and forcible declaration. And now it was submitted to Congress for adoption.

"The people knew that their destiny was hanging in the balance. All day the streets were crowded with anxious men and women, impatiently waiting to hear the decision. They surged against the barred doors of the assembly rooms and stood upon one another's shoulders to peer in the windows.

"In yonder wooden steeple which crowns the red brick State House stands an old man, with white hair and sunburnt face. He is clad in humble attire, yet his eye gleams as it is fixed upon the ponderous outline of the bell suspended in the steeple there. The old man tries to read the inscription on that bell, but cannot. * * * He is no scholar, he scarcely can spell one of those strange words carved on the surface of the bell.

"By his side, gazing in his face in wonder, stands a flaxen-haired boy, with laughing eyes of summer blue.

"'Come here, my boy; you are a rich man's child, you can read. Spell me those words and I'll bless you, my good child!'

'The child raised himself on tiptoe and pressed his tiny hands against the bell, and read in lisping tones these memorable words:

"'*Proclaim liberty throughout all the land, unto all the inhabitants thereof.*'

"The old man ponders for a moment on those words; then gathering the boy in his arms he speaks:

"'Look here, my child! Wilt do the old man a kindness? Then haste you down stairs and wait in the hall by the big door until a man shall give you a message for me. A man with a velvet dress and a kind face will come out from the big door and give you a word for me. When he gives you that word, then run out yonder in the street and shout it up to me. Do you mind?'

"It needed no second command. The boy sprang from the old bell-keeper's arms and threaded his way down the dark stairs.

"The old bell-keeper was alone. Many minutes passed. Leaning over the railing of the steeple, his face toward Chestnut street, he looked anxiously for that fair-haired boy. Moments passed—an hour—yet still he came not. Impatiently the old man shook his head and repeated: 'They will never do it; they will never do it!'

"As the words were on his lips a merry, ringing laugh broke on the ear. There among the crowds on the pavement stood the blue-eyed boy, clapping his hands, while the breeze blew his flaxen hair all about his face, and, swelling his little chest, he raised himself on tiptoe and shouted a single word—

"'Ring!'

"Do you see that old man's eye fire? Do you see that withered hand grasping the iron tongue of the bell? The old man is young again; his veins are filled with new life. Backward and forward, with sturdy strokes, he swung the tongue. The bell speaks out! The crowd in the street hears it, and bursts forth in one long shout. Old Delaware hears it and gives it back in the hurrah of her thousand sailors. The city hears it, and starts up from desk and work bench, as though an earthquake had spoken.

"Yet still, while the sweat pours from his brow, that old bell-keeper hurls the iron tongue, and still—boom—boom—boom—the bell speaks to the city and to the world.

"Yes, as the old man swung the iron tongue the bell spoke to all the world. That sound crossed the Atlantic, pierced the dungeons of Europe, the workshops of England, the vassal fields of France.

"Proclaim liberty throughout all the land, and to all the inhabitants thereof!

"That iron tongue spoke to the slave—bade him lock from his toil and know himself a man.

"That iron tongue startled the kings upon their crumbling thrones.

"That echo was the knell of kingcraft and priestcraft, and all other crafts born of the darkness of ages and baptized in seas of blood.

"Yes, the voice of that little boy, who, lifting himself on tiptoe, with his flaxen hair blowing in the breeze, shouted 'Ring!" had a deep and awful meaning in its infant tones."

Yes, sturdy John Hancock, President of the Congress, had signed the declaration of American independence in that bold hand which "the King of England could read without spectacles," and the other signatures followed and our Nation was born.

When the British forces approached Philadelphia in 1777 the bell was taken down and carried to Allentown to prevent its falling into the hands of the enemy.

In 1781 it was placed in the brick tower of the State House. For more than fifty years the bell was rung on the anniversary of Independence Day, when it was cracked while ringing. For many years the old bell remained in silent dignity in the tower, when it was taken down and placed on a platform in Independence Hall, where it has ever since remained. The great bell was conveyed to New Orleans for the exposition held there in 1884, and now it rests in the Pennsylvania State building in the "White City."

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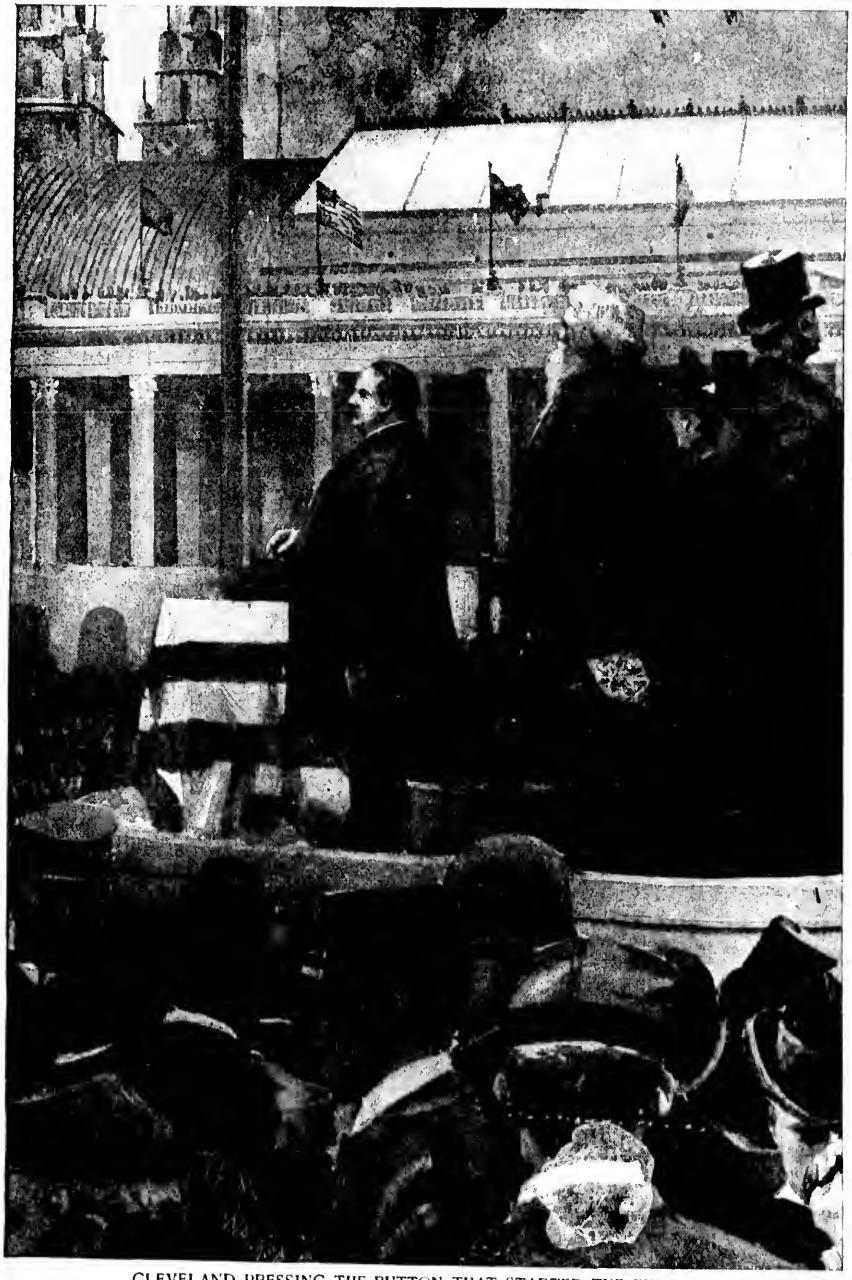

CLEVELAND PRESSING THE BUTTON THAT STARTED THE EXPOSITION.

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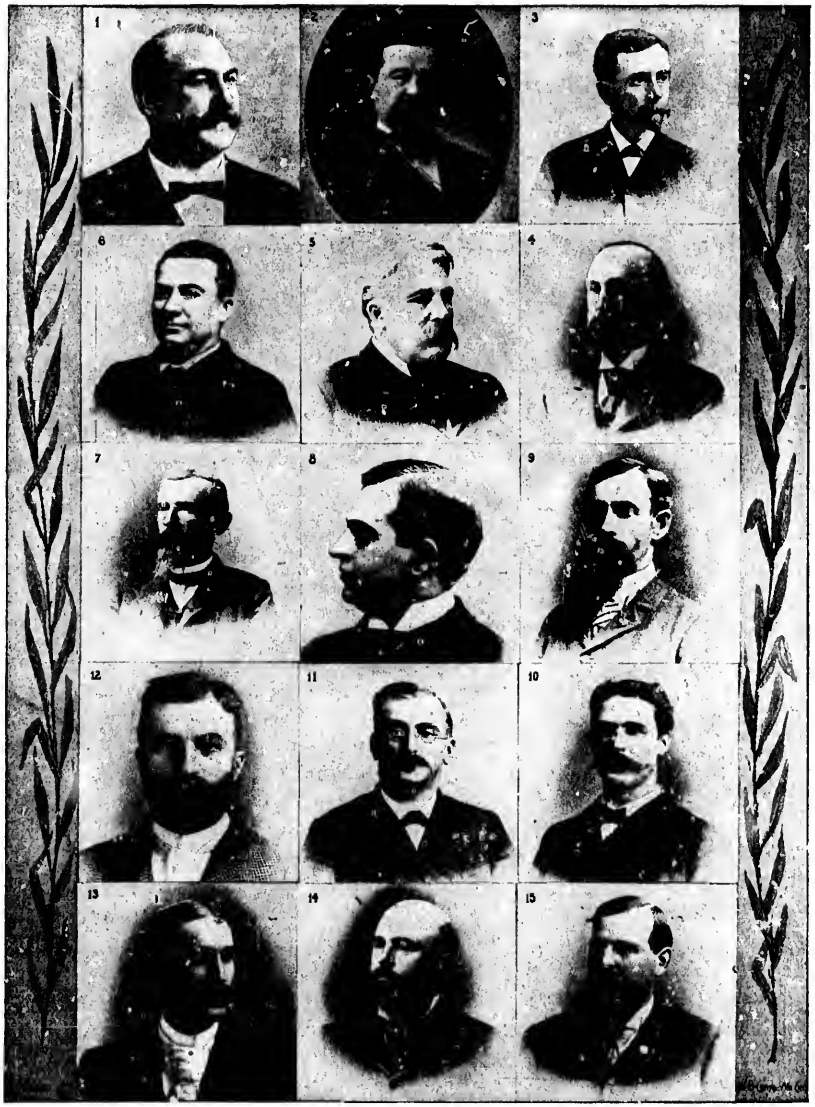
CHAPTER IV.

THE FORMAL OPENING OF THE EXPOSITION.

Nearly a Quarter of a Million People Present—President Cleveland Presses the Magic Electric Button at Noon, May 1, 1893, and the Monster Allis Engine in Machinery Hall is Set in Motion Amidst the Booming of Cannon, the Blowing of Trumpets, the Ringing of Bells, the Unfurling of Flags and the Vociferations of the Multitude—The White Palaces Abloom and Ablaze with Color—Twenty Thousand Flags are Unfurled—Half a Hundred Foreign Emblems Cheered by the People Who Live Under Them—The Orchestra Play the National Hymn and Thousands of Patriotic Men and Women Join in the Chorus—The Spectacle as Seen From the Administration Building—President Cleveland's Address.

MAY 1, 1893, was the greatest and grandest day in the history of Chicago—and an interesting and important one to the world—for it was the day of the official opening of the World's Columbian Exposition. As Columbus achieved success only after peril and disappointment, so the Exposition which was to honor the four hundredth anniversary of the discovery of America by the noble navigator attained completeness only after many months of internecine conflicts and misunderstandings, and long-continued tempestuousness of weather never before experienced throughout the great city upon the waters of Lake Michigan. It was not expected that the Exposition would reach perfection of readiness at exactly the day set for the opening exercises, even if the winter's storms of winds and rains and snows had been less destructive and severe, because no great exposition has been strictly complete in all its departments upon its opening day. As the fashionable party woman disdains to become the first arrival at the house of her entertainer, so the experienced exhibitor at all great expositions hangs back until some less punctilious or more heedless one opens the installation ball.

But notwithstanding the "winter of their discontent," the Exposition authorities were so well aware of the proximity to completeness of their great show that President Cleveland was invited to come to Chicago and press the magic button which should make the enormous Allis engine throb, and say to the world that he had officially opened their Columbian Exposition. This the President of the United States did at 12 o'clock (Meridian), on Monday, May 1, 1893, in the presence of nearly a quarter of a million of people, amidst the unfurling of thousands of flags,



COMMISSIONERS WORLD'S COLUMBIAN COMMISSION.

1. ALEXANDER B. ANDREWS, *North Carolina.*
2. THOS. B. KEOGH, *North Carolina.*
3. R. B. RICKETTS, *Pennsylvania.*
3. WM. MCINTYRE, *South Dakota.*
5. MERRITT H. DAY, *South Dakota.*
4. JOHN W. WOODSIDE, *Pennsylvania.*
7. ARCHELAUS M. COCHRAN, *Texas.*
8. JOHN T. DICKINSON, *Texas.*
9. GEORGE F. COATS, *Arizona.*
12. RICHARD MANSFIELD WHITE, *New Mexico.*
11. THOMAS C. GUTIERRES, *New Mexico.*
10. WM. K. MEADE, *Arizona.*
13. OTHNEIL BERSON, *Oklahoma.*
14. FRANK R. GAMMON, *Oklahoma.*
15. FREDERICK J. KIESEL, *Utah.*

the sounding of trumpets, the booming of cannon and the vociferations of the vast multitude.

To be strictly correct, at precisely 12:08 o'clock President Cleveland stepped forward and placed his finger on the golden key. The white-coated sailor standing at the main mast before the Presidental box tugged madly at the rope which bound the mighty flag in place. Slowly it fell and the wind swept its silken folds out over the seething mass of people below. They hailed it with wild cheers, and at the sign other flags leaped and blossomed from the thousand masts. At the right the crimson and gold of Spain fluttered beneath the gorgeous caravel. At the left the flag of the great Columbus fell from the folds which bound it. Down the long white roof line of Machinery Hall ran a sudden burst of crimson flame. From every tower and parapet fell and fluttered some brilliant ensign. The white palaces were abloom and ablaze with color. Citizens of half a hundred nations looked upward and cheered the flag of their devotion.

At the instant the drapery fell from the golden figure of the "Republic," backed by the classic peristyle, she stood forth in radiant beauty welcoming the world. From the electric fountains jets of water shot a hundred feet into the air, the mist falling upon the upturned faces of the cheering crowd. But above their cheers came the deep thunder of the guns fired from the white and gold hull of the Michigan lying in the harbor. Steam whistles filled the air with a shrill din and the deep chiming of far-off bells added to the uproar. President Cleveland bowed and smiled and shook hands with Director-General Davis. The orchestra struck up the strain of the national hymn, and with one voice 10,000 human beings in the throng before the platform carried the swelling chorus.

The Duke of Veragua stepped forward and congratulated the Director-General and the people broke into a tremendous shout. Back from the post of honor the guests slowly passed, the thunder of the guns over the lake still coming to their ears. Gondolas and launches, laden with flags, shot and skimmed over the waters like things alive. In a hundred directions the great crowd surged at once. Like a torrent released from a dam which holds it, it beat and broke. On every hand the White City was crowned with flags, running the gamut of color, but above the splendor of imperial banners the starry folds of "Old Glory" rose and fell, dearer to every patriotic eye than all the rest. Men pressed about the Presidential box and tore pieces of cloth from its sides as mementoes of the occasion. Ladies crushed into the jam were lifted over the rail and hurried to places of safety. The strain was over. The Columbian Exposition had been opened to the world.

When the President touched the golden key on the table in front of him, that act opened an electric current, in a wire circuit 3,000 feet in length, which connected the key with the minute, temporary motors placed at the Allis engine and the Worthington pump for the occasion. The subsequent process was a little different at these two places.

At the Allis engine the wire passed through a beautiful-mounted box of polished oak a foot square, containing an electro-automatic engine-stop. As the key was touched the electric current energized a magnet within the box; the magnet

attracted its armature; and the movement of the armature released a trigger, and set off a coiled spring inclosed in a brass drum. The recoil of the spring revolved the axis of the drum and a sprocket-wheel on the outside of the box. The sprocket-wheel was connected by a brass drive-chain with the sprocket-wheel that opened the throttle, and in less than a second after the President touched the button these sprocket-wheels had made a dozen revolutions, the throttle had been thrown open, and the ponderous fly-wheel of the engine slowly awoke to life and began to turn.

So it was at the pumping-station. When the President touched the key a magnet connected with an electric valve was energized. The armature was attracted to the magnet and at the same time operated a miniature steam chest on a miniature cylinder. This admitted steam through a pipe no larger than a pipe-stem into one end of the miniature cylinder, and when the piston moved it opened the throttle of the great machine. The steam rushed into the great cylinders, and the immense pump, fifty feet high, gave a sigh and began to heave its enormous burden of 15,000,000 gallons of water a day.

The life and motion of the Allis engine and the Worthington pump were contagious. In Machinery Hall at least thirty great engines, as if they had heard the ringing of the gong on the electro-automatic engine-stop, started up into life with a roar and thrashed the air with their immense fly-wheels like a cyclone. So in the pumping station, the Worthington vertical was joined instantly by the Worthington horizontal and the Worthington triple expansion, the three together, puffing and groaning, forcing water into the great mains at the rate of 40,000,000 gallons a day.

What President Cleveland really touched was a key similar to that seen on nearly all telegraphic instruments. There is this difference, however, that the ordinary key is made of brass and the push is made of hard rubber, while the key that played such an important part in the ceremonies of the opening day is made of gold and has a button of ivory. The reason for this is that it was manufactured for this express purpose by E. S. Greeley & Co., of New York, who only loaned it for one day, and who expect to treasure it as a souvenir of the occasion.

The key is mounted on a three-tiered pedestal, which measures 24x18 inches at the bottom of 16x10 inches at the top. The horizontal surfaces of the pedestal are covered with blue, in honor of the United States, and its vertical surfaces with golden yellow plush, in honor of Spain. On the side of the lowest tier, in silver figures, is seen "1492-1893."

The spectacle, as seen from the roof of the Administration Building, was grand and enlivening. As early as 9 o'clock two thousand people had crowded before the circular platform on which the Presidental party was to sit. A drizzling rain was falling and the streets were heavy with yellow mud. Wagons piled high with ferns and palms were pushing their way through the crowd. Stretching their long lines diagonally from either end of the great platform troops were drawn up at present arms. By 10 o'clock the Iowa State band of sixty musicians in gay uniform, plodded their way through the mud and disappeared in the direction of the

DUKE OF VERAGUA.

State Building. The water had been let into the MacMonnies fountain, and the dolphins and sea horses were afloat once more in their native element. Against the gray, gloomy skies the white palaces stood out in burnished beauty. On every roof men, looking from the ground like ants, were climbing about, pulling up the thousand flags and banners in readiness for the touch of the President's finger which would give them to the breeze.

With every moment the crowd grew. Looking down upon it 250 feet above the earth, the hats and upturned faces, varied here and there by the bright bonnets of the women, seemed like the constantly changing facets of a kaleidoscope. Over the green waters of the white-walled basin electric launches pushed their way. About them the white-winged gulls soared and circled. Now and then a gaudy gondola shot by. Slowly the platform filled, and as the members of the diplomatic corps, in their gaudy costumes, and the army officers, in all the glory of gold and crimson and black, took their places, the scene from above was a brilliant one.

At 10:30 o'clock, as if by providential interference, the clouds suddenly lifted and a golden gleam of sunshine fell upon the pure white beauty of the peristyle. The crowd, by this time numbering 25,000 people, greeted the sun with a cheer. Suddenly from the west forty Indian chiefs, led by Rain-in-the-Face, in all the barbaric splendor of red and yellow, pressed their way through the crowd. Again the expectant and impatient crowd struck up a cheer.

Far down on the projecting platform where the seats of the Presidental party were placed, men were laying Turkish rugs and preparing the last decorations. With the coming of the sunlight the waterproof which had covered the table upon which rested the golden key was removed. Mounted on a pillow of blue and crimson velvet the magical golden emblem rested upon the folds of a flag. Men, pressing closely about the circumference of the platform, saw it as it glistened and greeted it with a cheer. All about the high columns and the jutting ledges of the east front of the Administration Building, men and women climbed and dangled in dangerous and exposed positions. From the little jets in the basin of the MacMonnies fountain water spouted into the air. The sky began to clear and great sweeps of sapphire stood ravishingly out against the prevailing clouds of gray; and on all the buildings, high upon pillar and parapet, human beings swarmed.

The following is the address of the President upon opening the Fair:

I am here to join my fellow-citizens in the congratulations which befit this occasion. Surrounded by the stupendous results of American enterprise and activity, and in view of magnificent evidences of American skill and intelligence, we need not fear that these congratulations will be exaggerated. We stand today in the presence of the oldest nations of the world and point to the great achievements we here exhibit, asking no allowance on the score of youth.

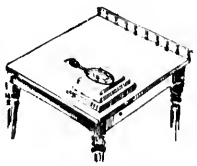
The enthusiasm with which we contemplate our work intensifies the warmth of the greeting we extend to those who have come from foreign lands to illustrate with us the growth and progress of human endeavor in the direction of a higher civilization.

We who believe that popular education and the stimulation of the best impulses of our citizens lead the way to a realization of the proud national destiny which our faith promises, gladly welcome the opportunity here afforded us to see the results accomplished by efforts which have been exerted longer than ours in the field of man's improvement, while in appreciative return we exhibit the unparalleled advancement and wonderful accomplishments of a young nation, and present the triumphs of a vigorous, self-reliant and independent people. We have built these splendid edifices, but we have also built the magnificent fabric of a popular government, whose grand proportions are seen throughout the world. We have made and here gathered together objects of use and beauty, the products of American skill and invention. We have also made men who rule themselves.

It is an exalted mission in which we and our guests from other lands are engaged, and we co-operate in the inauguration of an enterprise devoted to human enlightenment; and in the undertaking we here enter upon we exemplify in the noblest sense the brotherhood of nations.

Let us hold fast to the meaning that underlies this ceremony, and let us not lose the impressiveness of this moment. As by a touch the machinery that gives life to this vast Exposition is now set in motion, so at the same instant let our hopes and aspirations awaken forces which in all time to come shall influence the welfare, the dignity, and the freedom of mankind.

[The President then touched the key before him.]



THE KEY WHICH PRESIDENT CLEVELAND TOUCHED.

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PART VI.

THE WOMEN OF THE EXPOSITION AND WOMAN'S WORK

CHAPTER I.

THE WOMAN'S BUILDING AND ITS PURPOSES.

New Methods of Usefulness Created—The Woman's Building an Additional Agency for the Exposition of Woman's Work—This Conception Concerning Woman's Skill and Inventiveness Cleared Away—Women the Originators of Most of the Industrial Arts—The Woman's Building an Inspiration of Woman's Genius—Some of the Exhibits—Mrs. Palmer's Curious Office Room—The Fish Women of New Jersey.

IN no previous exposition has woman essayed so important and conspicuous a part as she has been called upon to perform at the great Columbian Exposition of 1893. At no time in her history has she been accorded such a place as she now occupies as an integral part of a mammoth display of the achievements of mankind. It seems fitting that contemporaneously with her advanced position as part of the world's force she should display the benefits which her emancipation has worked, and that side by side with the products of man's brain and energy, woman's should be placed for comparison. The Centennial Exposition in Philadelphia and the Cotton Centennial in New Orleans were greatly aided by the participation of women, who created what they termed the woman's department, wherein was installed a collective exhibit of all the interesting and meritorious work by women that could be brought together. This woman's department proved so useful and attractive that the co-operation of women in exposition work was recognized as a valuable addition, and in consequence the original Act of Congress providing for the celebration of the quadro-centennial created an official organization known as the Board of Lady Managers.

When the board first assembled to organize its work for the Columbian Exposition it was found that, though the previous work had been most effective, the impelling law of progress demanded a different plan of action for the Exposition of 1893. Established precedent had to be thrown aside and new methods of usefulness created. This proved to be necessary because of the strong sentiment among those most interested against taking the exhibits of women from the general build-

CUPID FROM BORDER OF MURAL DECORATION OF WOMAN'S BUILDING.

ings and placing them apart in a "Woman's Department." Women who were doing the most creditable work in the arts and industries strenuously opposed such a separation, and insisted that their exhibits should be so placed as to compete with the best and most successful productions in all departments of classified exhibits without regard to sex distinction. As in some classes of work women are not credited with having arrived at a degree of excellence equal to that of men, a competition among women only would result in the award of premiums to articles which would not necessarily have been successful if entered in a general competition. In an international competitive exhibition the object is to honor the highest grade of work only, and thereby give it an international reputation and added commercial value. This intention might therefore, be entirely defeated in case of a competition restricted to women only.

Women, therefore, have exhibits in every department of the fair in every line of industrial, scientific and artistic work. One of the richerished ideals is to remove the impression that women are doing little skilled labor, or little steady and valuable work, and that they consequently are not to be taken seriously into consideration when dealing with industrial problems; that they never learn to do anything thoroughly well, and that, therefore, the small compensation given them is a just and proper equivalent for their services, because it has no abstract commercial value. An effort has, therefore, been made to demonstrate that their labor is a fixed and permanent element and an important factor in the industrial world, and must be carefully studied in its relations to the general whole. Upon a strong presentation of the facts, it is hoped that a healthy public sentiment may be created which will condemn the disproportionate wages paid men and women for equal services. The Woman's Building is an additional agency for the exposition of woman's work. It is the inspiration of woman's genius, and provides all the comforts and conveniences for women during the Exposition. The design was selected from a number of competitive sketches sub-

CUPID FROM BORDER OF MURAL DECORATION OF WOMAN'S BUILDING

mitted by women architects. It is 400 feet long by 200 wide and cost $200,000. It has land and water approaches and a big rotunda, around which runs a gallery which is devoted to an exhibition of the most distinguished works of women

A roof garden is supported by caryatides, which was modeled by a woman; the statuary above the roof line, relief compositions, mural decorations, structural decorations, carved wainscoting and balustrades for the staircases, open carved screens, ornamental iron and brass work, decorative tapestries and panels are all the work of women, and illustrate the rank which they hold as artisans and designers.

The building has social headquarters, parlors, reading, writing and committee rooms, and a great congress hall. The building has many rooms, which are variously occupied—as a library of books by women, records and statistics of employments in which women are engaged, a kindergarden room, model kitchen, exhibits of lace, embroideries, fans, jewels, silver, and other women's work, and a hospital and training school for nurses in operation.

In the exhibits there is not a single thing made by the hand of man. Everything is by women, and the hope is that they will clear away misconceptions as to the originality and inventiveness of women, and will demonstrate that while they have been largely occupied as home makers and not trained or educated for industrial or artistic pursuits, their adaptability and talents have enabled them to surmount the barriers and limitations which have hemmed them in.

Women, among all the primitive people, it is alleged, were the originators of most of the industrial arts. While man the protector fought or hunted, woman constructed the home, ground the grain, dressed the skins and fashioned them into garments. She invented the needle, thread, and the shuttle, and was the first potter. She originated basket making and ornamental work, and all of this is shown in the ethnological display.

Portraits of Sappho and Hypatia and other women of the classic and mediæval times are to be seen, and what remains of the textile fabrics, drawn work, rare tapestries, and laces. The old Bayeux tapestry made by Matilda of Flanders, reproductions of the statues made by Sabina von Steinbach for the Strasburg Cathedral; the book of Abbess Herrad, which contains a compendium of all the knowledge of her day, and a long list of similar products by women are shown. Naturally a field as extensive as this must bear much fruit, and the Woman's Building ranks very close to the more pretentious expositions in the interest it will arouse.

Great Britain, America, and Germany make the best exhibits. The former shows every kind of work in which the women of England, Scotland, Ireland, and Wales are engaged. Notable are embroideries by Princess Louise, the Royal School of Needlework, of which Queen Victoria is a patron, and the Countess of Tankerville; sketches by Kate Greenaway and Gertrude Bradley; table napkins made from flax spun by Queen Victoria; a table cloth embroidered by Princess Helena, and a straw hat plaited by the Queen for Princess Victoria of Schleswig-Holstein. The English lace display is very fine, and its paintings are numerous.

One of the most interesting as well as one of the most unique rooms in the

Woman's Building is the private office of Mrs. Palmer. It is a room with a history, and contains the exhibit of the New Jersey fish-women, arranged under the personal supervision of Mrs. Charles W. Compton of Newark, one of the New Jersey lady alternates. The work is one in which Mrs. Compton is greatly interested, and it was to obtain some recognition of it that she visited Chicago some months before the opening. When she applied for space the committee could find none for her, and she sought out Mrs. Palmer. To her she told the story of the sad lives of the women of the fishing districts, and of the benefit it would be to them if they could in some way be recognized in the great Fair. Mrs. Palmer's heart was touched as she listened to tales of privation at all times and of actual suffering when winter lays his icy hand on sea and shore. "Room shall be found for them," she said, "even if I have to have the exhibit in my own private office." Many of the lady managers protested at the idea of having fishing nets and baskets put up in their president's room, but the work went on. The decorations of the room are seines, fishing nets, and baskets, while dolls are used in practical demonstration. The seines are festooned from the ceilings, and a huge casting net is used as a dais over Mrs. Palmer's desk. The women of Salem county, New Jersey, sent the furniture, which is of the old colonial style.

SEAT OF STOOL IN LEATHER WORK—PRINCESS VICTORIA OF WALES, ENGLAND.

CHAPTER II.

THE WOMEN WHO CONTROL.

Generally Known as the Board of Lady Managers of the World's Columbian Exposition—A Large Number of Prominent Women Among the Members—Names and Residences and Official Positions.

THE Board of Lady Managers was created by Act of Congress, approved April 25, 1890. It consists of 117 members, with alternates—eight at large, two each from the several states and territories and District of Columbia, and nine from the City of Chicago. Its members were selected by the World's Columbian Commission. The Board has general direction and supervision of the representation of women at the Exposition. OFFICIALS OF THE BOARD.—President—Mrs. Potter Palmer, of Chicago. Vice-Presidents—First, Mrs. Ralph Trautmann, of New York; Second, Mrs. Edwin C. Burleigh, of Maine; Third, Mrs. Charles Price, of North Craolina; Fourth, Miss Katherine L. Minor, of Louisiana; Fifth, Mrs. Beriah Wilkins, of the District of Columbia; Sixth, Mrs. M. D. Thatcher, of Colorado; Seventh, Mrs. Flora Beall Ginty, of Wisconsin; Eighth, Mrs. Margaret Blaine Salisbury, of Utah; at large, Mrs. Russell B. Harrison, of Nebraska. Vice-Chairman of Executive Committee—Mrs. Virginia C. Meredith, of Indiana. Secretary—Mrs. Susan Gale Cooke, of Tennesee.

LADY MANAGERS AT LARGE.—Mrs. D. F. Verdenal, NewYork; Mrs. Mary Cecil Cantrill, Georgetown, Ky.; Mrs. Mary S. Lockwood, Washington, D. C.; Mrs. John J. Bagley, Detroit, Mich.; Miss Ellen A. Ford, New York; Mrs. Mary S. Harrison, Omaha, Neb.; Mrs. Ida Elkins Taylor, Philadelphia, Pa.; Mrs. Rosine Ryan, Austin, Texas. Alternates—Mrs. Benjamin C. Truman, Los Angeles, Cal.; Mrs. Nancy Huston Banks, Morganfield, Ky.; Mrs. James B. Stone, Worcester, Mass.; Mrs. Schuyler Colfax, South Bend, Ind.; Miss Helen A. Peck, Kansas City; Miss Caroline E. Dennis, Auburn, N. Y.; Mrs. George R. Yarrow, Philadelphia, Pa.; Mrs. Caroline Willis Ladd, Galveston, Texas.

MEMBERS OF THE BOARD.—Lady Managers from States—Alabama—Miss Hattie Toney Hundley, Mooresville; Mrs. Anna M. Fosdick, Mobile. Alternates—Mrs. Sallie H. Bush, Birmingham; Mrs. Irene W. Semple, Montgomery.

Arkansas—Mrs. James P. Eagle, Little Rock; Mrs. Rollin A. Edgerton, Little Rock. Alternates—Margaret M. Ratcliff, Little Rock; Mrs. William B. Empie, Newport.

LADY MANAGERS, RESIDENTS OF CHICAGO.

1. Mrs. Potter Palmer. 2. Mrs. Solomon Thatcher, Jr.
3. Mrs. James A. Mulligan. 4. Francis Dickinson, M. D. 5. Mrs. M. R. M. Wallace.
6. Mrs. Myra Bradwell. 7. Mrs. James R. Doolittle, Jr. 8. Mrs. Matilda B. Carse.
9. Martha H. Ten Eyck. 10. Mrs. Margaret I. Sanderson. 11. Mrs. Leander Stone.
12. Mrs. Gen. A. L. Chetlain. 13. Frances E. Willard.

California—Mrs. Parthenia P. Rue, Santa Rosa; Mrs. James R. Deane, San Francisco. Alternates—Mrs. Isaac L. Requa, Piedmont; Mrs. Frona E. Wait, San Francisco.

Colorado—Mrs. Laura P. Coleman, Buena Vista; Mrs. M. D. Thatcher, Pueblo. Alternates—Mrs. Annie B. Patrick, Leadville; Mrs. Susan R. Ashley, Denver.

Connecticut—Miss Frances S. Ives, New Haven; Mrs. Isabella Beecher Hooker, Hartford. Alternates—Mrs. Amelia B. Hinman, Stevenson; Mrs. Virginia T. Smith, Hartford.

Delaware—Mrs. Mary Richards Kinder, Milford; Mrs. J. Frank Ball, Wilmington. Alternates—Mrs. Mary E. Torbert, Milford; Mrs. Theodore F. Armstrong, Newark.

Florida—Mrs. Mary C. Bell, Gainesville; Miss E. Nellie Beck, Tampa. Alternates—Mrs. Chloe Merrick Reed, South Jacksonville; Mrs. H. K. Ingram, Jacksonville.

Georgia—Mrs. Wm. H. Felton, Cartersville; Mrs. Charles H. Olmstead, Savannah. Alternates—Miss Meta Telfair McLaws, Augusta; Mrs. Geo. W. Lamar, Savannah.

Idaho—Mrs. Anna E. M. Farnum, Hauser Junction; Mrs. Joseph C. Straughan, Boise, City. Alternates—Mrs. Louise L. Barton, Moscow; Mrs. Ella Ray Miller, Pocatello.

Illinois—Mrs. Richard J. Oglesby, Elkhart; Mrs. Frances Welles Shepard, Chicago. Alternates—Mrs. Marcia Louise Gould, Moline; Mrs. Isabella L Candee, Cairo.

Indiana—Miss Wilhemine Reitz, Evansville; Mrs. Virginia C. Meredith, Cambridge City. Alternates—Miss Susan W. Ball, Terre Haute; Miss Mary H. Krout, Crawfordsville.

Iowa—Mrs. Whiting S. Clark, Des Moines; Miss Ora Elizabeth Miller, Cedar Rapids. Alternates—Mrs. Ira F. Hendricks, Council Bluffs; Miss Mary B. Hancock, Dubuque.

Kansas—Mrs. Jennie S. Mitchell, Topeka; Mrs. Hester A. Hanback, Topeka. Alternates—Mrs. Sara Blair Lynch, Leavenworth; Mrs. Jane H. Haynes, Fort Scott.

Kentucky—Miss Jean W. Faulkner, Lancaster; Mrs. A. C. Jackson, Covington. Alternates—Miss Sarah F. Holt, Frankfort; Mrs. Alice B. Castleman, Louisville.

Louisiana—Miss Catherine L. Minor, Houma; Mrs. Belle Hamilton Perkins, New Orleans. Alternates—Mrs. Bowling S. Leathers, Steamer Laura Lee, New Orleans; Mrs. W. W. Carre, New Orleans.

Maine—Mrs. Edwin C. Burleigh, Augusta; Mrs. L. M. N. Stevens, Portland. Alternates—Mrs. Sarah H. Dixby, Showhegan, Miss Helen M. Staples, Hanover.

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Michigan—Mrs. Eliza J. Pendry Howes, Battle Creek; Mrs. Angell, Ann Arbor. Alternates—Mrs. Frances P. Burrows, Kalamazoo; Miss Anna M. Cutcheon Detroit.

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Mississippi—Mrs. James W. Lee, Aberdeen; Mrs. John M. Stone, Jackson. Alternates—Mrs. George M. Buchanan, Holy Springs; Miss Varina Davis, Beauvoir.

Missouri—Miss Phoebe W. Couzins, LL.B., St Louis; Miss Lillian Mason Brown, Kirkwood. Alternates—Mrs. Patti Moore, Kansas City; Mrs. Annie L. Y. Orff, St. Louis, care of Chaperone Magazine.

Montana—Mrs. Eliza Rickards, Butte City; Mrs. Clara L. McAdow, Helena. Alternates—Mrs. Laura E. Howey, Helena; Mrs. Marian D. Cooper, Bozeman

Nebraska—Mrs. John S. Briggs, Omaha; Mrs. E. C. Langworthy, Seward. Alternates—Mrs. M. A. B. Martin, Beatrice; Mrs. Lana A. Bates, Aurora.

Nevada—Miss Eliza M. Russell, Elko; Mrs. M. D. Foley, Reno. Alternates—Miss Mary E. Davies, Genoa; Miss Jennie Torreyson, Carson City.

New Hampshire—Mrs. Mira B. F. Ladd, Lancaster; Mrs. Daniel Hall, Dover. Alternates—Mrs. Frank H. Daniell, Franklin Falls; Miss Ellen J. Coles, Lake village.

New Jersey—Miss Mary E. Busselle, Newark; Mrs. Martha B. Stevens, Hoboken. Alternates—Mrs. Jas. W. Compton, Newark; Mrs. Amanda M. Smith, Newark.

New York—Mrs. Ralph Trautmann, New York City; Mrs. William Kissam Vanderbilt, New York. Alternates—Mrs. John Pope, New York City; Mrs. A. M. Palmer, New York.

North Carolina—Mrs. George Wilson Kidder, Wilmington; Mrs. Charles Price, Salisbury. Alternates—Mrs. Sallie S. Cotton, Falkland; Miss Virginia Stella Divine, Wilmington.

North Dakota—Mrs. S. W. McLaughlin, Grand Forks; Mrs. W. D. McConnell, Fargo. Alternates—Mrs. Alice Vineyard Brown, Lisbon; Mrs. Frances C. Holley, Bismarck.

Ohio—Mrs. Mary A. Hart, Glendale; Mrs. Walter Hartpence, Harrison. Alternates—Mrs. Harriet Taylor Upton, Warren; Mrs. Asa S. Bushnell, Springfield.

Oregon—Mrs. E. W. Allen, Portland; Mrs. M. Payton, Salem. Alternates—Mrs. Anna L. Riggs, Portland; Mrs. Hattie E. Sladden, Eugene.

Pennsylvania—Miss Mary E. McCandless, Hays, Pittsburg; Mrs. Harriet Anne Lucas, Philadelphia. Alternates—Mrs. Samuel Plumer, Franklin; Mrs. W. S. Elkins, Philadelphia.

MRS. POTTER PALMER.

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Wyoming—Mrs. F. H. Harrison, Evanston; Mrs. Frances E. Hale, Cheyenne. Alternates—Mrs. Elizabeth A. Stone, Evanston; Miss Gertrude M. Huntington, Saratoga.

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Arizona—Mrs. Thomas J. Butler, Prescott, Miss Laurettu Lovell, Tucson. Alternates—Mrs. Geo. Hoxworth, Flagstaff, Mrs. H. J. Peto, Tombstone.

New Mexico—Mrs. Franc Luse Albright, Albuquerque; Mrs. Edward L. Bartlett, Santa Fe. Alternates—Miss Lucia Paria, Albuquerque; Mrs. Louise Dakin Campbell, Eddy.

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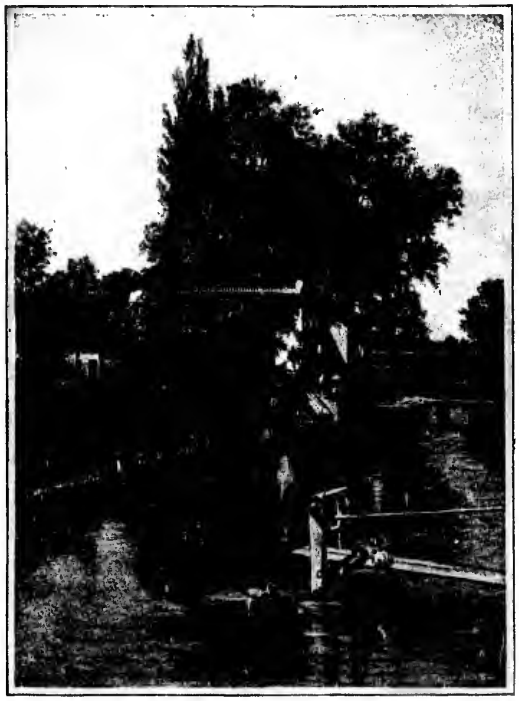
Lady Managers from Chicago.—Mrs. Bertha M. Honore Palmer, Mrs. Solomon Thatcher, Jr., River Forest; Mrs. L. Brace Shattuck, Mrs. James A. Mulligan, Frances Dickinson, M. D., Mrs. M. R. M. Wallace, Mrs. Myra Bradwell, Mrs. James R. Doolittle, Jr., Mrs. Matilda B. Carse. Alternates—Mrs. Sarah M. Hallowel, Mrs. George L. Dunlap, Mrs. William Kimball, Mrs. Annie C. Meyers, Martha H. Ten Eyck, Mrs. Margaret Isabelle Sandes, Ravenswood, Ill., Mrs. Leander Stone, Mrs. Gen. A. L. Chetlain, Frances E. Willard, Evanston, Ill.



OIL PAINTING—LANDSCAPE—FRAU SCHROEDER, GERMANY.

CHAPTER III.

FORMAL OPENING OF THE WOMAN'S BUILDING.

Mrs. Potter Palmer's Address—Driving of the Last Nail—A Woman's Hand Drives the Golden Nail with a Silver Hammer—A Beautiful Structure, the Completion of Which Signified an Accomplishment of Which the United Womanhood of the World Has Had a Part—Large Number of Distinguished Women Present—A Grand March Composed by a German Woman, Frau Ingeborg von Bronsart of Weimar—Prayer by Miss Ida Hutton—Overture by Miss Frances Elliott, of London, England—Reading of a Poem by Miss Flora Wilkinson—Remarks by Lady Aberdeen, the Duchess of Veragua, Mrs. Bedford Fenwick, Mrs. Kaselowsky and the Princess Schachoffsky.

NO EVENT of the Exposition except the official opening produced more transport than the formal dedication of the Woman's Building, which took place on the afternoon of May 1. That the opening ceremonies of this building should be held in its own main hall was peculiarly appropriate. A long room, whose arches and columns were decorated delicately in white and gold, whose walls were hung with the praiseworthy products of nineteenth century woman artists—this is what met the vision of those who entered for the first time. And this was not all. On the temporary platform erected at the west entrance were palms and potted plants, gracefully grouped, while above it on either side were draped the commingled colors of Spain and America. Palms, too, filled in the spaces between the arches of the north and south ends of the gallery, from which rows of smiling faces looked on at the ceremonies.

At the north end of the Hall of Honor was massed the great World's Fair chorus, which on this occasion interpreted only the music of women composers. The remaining space, when Mrs. Potter Palmer arose to open the exercises, was filled to overflowing with a gathering whose enthusiasm as it caught sight of the gracious President of the Board of Lady Managers found vent in cheers, applause and a fluttering of white handkerchiefs. When some thoughtful individual well versed in the art of delicate flattery took upon himself the task of removing from the platform the palms and the big bunch of American beauty roses, behind which, when she was seated, she was half concealed, the demonstration broke out with renewed vigor.

Mrs. Palmer presided at the Pennsylvania table, on which were placed a block of yew taken from the Washington State Building, the golden nail, and Colorado's silver jewel box. On a small table of Mexican onyx at her left reposed the ham-

MEMBERS OF THE BOARD OF LADY MANAGERS.

1. Mrs. Richard J. Oglesby, *Illinois.*
2. Mrs. Frances Welles Shepard, *Illinois.*
3. Miss Wilhelmine Reitz, *Indiana.*
4. Mrs. Virginia C. Meredith, *Indiana.*
5. Mrs. Rufus S. Frost, *Massachusetts.*
6. Mrs. Jonas H. French, *Massachusetts.*
7. Mrs. Mary A. Hart, *Ohio.*
8. Mrs. Walter Hartpence, *Ohio.*
9. Mrs. F. H. Harrison, *Wyoming.*
10. Mrs. Frances E. Hall, *Wyoming.*
11. Mrs. A. K. Delaney, *Alaska.*
12. Mrs. I. J. Austin, *Alaska*
13. Mrs. Marie P. Harmon Beeson, *Oklahoma.*
14. Mrs. Genevieve Guthrie, *Oklahoma.*
15. Mrs. Jno. A. Logan, *District Columbia.*

me[illegible] its leather case. Behind Mrs. Palmer was seated a group of distinguished wom[illegible]n, both foreign and American, whose gay toilets lent a pleasing touch of color and [illegible]rightness to the assembly. Among them were the Duchess of Veragua and the [illegible]on. Maria del Pilar Colon y Aguielera, Mme. Mariotti, Lady Aberdeen, Mrs. Bedford Fenwick, Frau Professor von Kasetowsky of Germany, Princess Mary A. Schahovsky of Russia, Miss Hulda Leinden of Russia, Mme. Zorn, Senora d'Oleivria Austen of Brazil, Mrs. Dickens, [illegible] Duchess of Sutherlayd, Lady Wolf, M[illegible] Windeye, Mrs. Robert Austen of [illegible] Lady Arnot, Miss Arnot, Miss We[illegible], Mme. Meaulle of Austria, Mrs. Lincl[illegible]ya of Siam, Baroness Thornburg [illegible] of Sweden, Mrs. Romero of Mexi[illegible]ohn G. Carlisle, Mrs. W. K. Carlisle, Miss Leila Herbert, Mrs. George T. W[illegible] w Jersey. Mrs. Adlai T. Stevenson, Mrs. John P. Altgeld, Miss Ida C. Hultin, [illegible] Wilkinson, Mrs. John A. Logan, Miss Catherine Minor, Mrs. Walter Q. Gresham, Mrs. Eliza Rickards, Mrs. Candace Wheeler, Mrs. Ralph Trautman, Mrs. Sarah S. C. Angell and Mrs. V. C. Merideth.

A grand march composed by Frau Ingeborg von Bronsart, of Weimar, Germany, and rendered by Theodore Thomas' men opened the exercises. Miss Ida Hutton offered the prayer, which was followed by a dramatic overture composed by Miss Frances Ellicott, of London, England. The following ode was then read by Miss Flora Wilkinson, daughter of W. E. Wilkinson, of Chicago University:

From the lovely land of Alhambra and out from the mists of the years,
Let us summon a presence before us, as spirits are summoned by seers.

Behold, a woman is standing, the glitter of gems in her hands,
With far gazing eyes that are turned toward the river of invisible lands.

Behold, royally bending to heed a stranger's appeal,
With gift of grace and of godspeed, Isabella, the Queen of Castile.

Let us join to man's glory the woman's, the glory of faith and of deed,
That cheered the brave mariner on in the day of his desperate need.

He, sailing, and sailing, and sailing into the sunset seas,
Little dreamed of the land that he sailed to, the sage and the sad Genoese.

She, dreaming, and dreaming, and dreaming apart in her palace of Spain
Little dreamed of the future awaiting that land of the Western main.

The future, a plant of God's garden, unfolding in beauty supreme
To blossom into the splendor of this White City of dream.

Not as Queen but as woman we hail Isabella, and crown her to-day
In these halls that women have built and illumined with costly array.

Here, gravely let us be grateful, as heirs of a generous past,
For the pleasures and powers and duties fallen to woman at last.

They have yielded to her their kingdoms, science, and letters, and art,
And still she controls undisputed the realm of the home and the heart.

Mrs. Palmer's rising for the purpose of delivering her address was the signal for another outburst of applause. She said:

MEMBERS OF THE BOARD OF LADY MANAGERS, LADIES AND GENTEMEN: The moment of fruition has arrived. Hopes for more than two years have gradually

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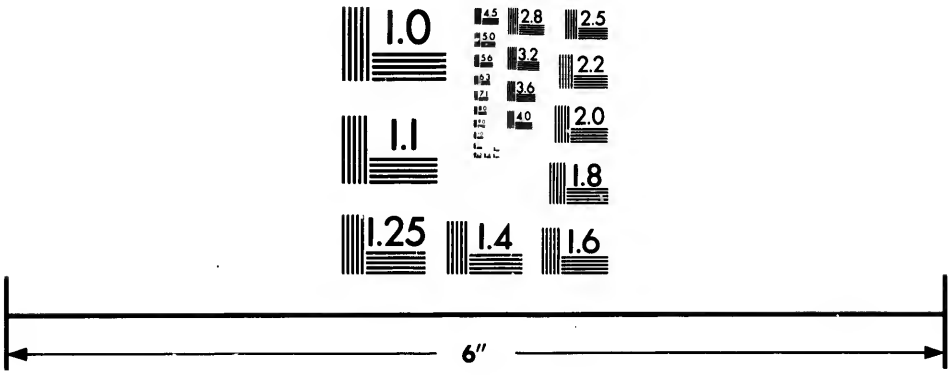

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been gaining strength and definiteness have now become realities. To-day the Exposition opens its gates. On this occasion of the formal opening of the Woman's Building the Board of Lady Managers is singularly fortunate in having the honor to welcome distinguished official representatives of many of the able foreign committees and of the state boards which have so effectively co-operated with it in accomplishing the results now to be disclosed to the world.

We have traveled together a hitherto untrodden path, have been subjected to tedious delays and overshadowed by dark clouds, which threaten disaster to our enterprise. We have been obliged to march with peace offerings in our hands lest hostile motives be ascribed to us. Our burdens have been greatly lightened, however, by the spontaneous sympathy and aid which have reached us from women in every part of the world, and which have proved and added incentive and inspiration. [Applause.] Experience has brought many surprises, not the least of which is an impressive realization of the unity of human interests, notwithstanding differences of race, government, language, temperament and external conditions. The people of all civilized lands are studying the same problems. Each success and each failure in testing and developing new theories is valuable to the whole world. Social and industrial questions are paramount, and are receiving the thoughtful consideration of statesmen, students, political economists, humanitarians, employers and employed.

The few forward steps which have been taken during our boasted nineteenth century—the so-called aid of invention—have promoted the general use of machinery and economic motive powers with the result of cheapened manufactured articles, but have not afforded the relief to the masses which was expected. The struggle for bread is as fierce as of old. We find everywhere the same picture presented—overcrowded industrial centers; factories surrounded by dense populations of operatives; keen competition; many individuals forced to use such strenuous efforts that vitality is drained in the effort to maintain life under conditions so uninviting and discouraging that it scarcely seems worth living. It is a grave reproach to modern enlightenment that we seem no nearer the solution of many of these problems than during feudal days.

It is not our province, however, to discuss these weighty questions except in so far as they affect the compensation paid to wage earners, and more especially that paid to women and children. Of all existing forms of injustice there is none so cruel and inconsistent as is the position in which women are placed with regard to self-maintenance—the calm ignoring of their rights and responsibilities which has gone on for centuries. If the economic conditions are hard for men to meet, subjected as they are to the constant weeding out of the less expert and steady hands, it is evident that women, thrown upon their own resources, have a frightful struggle to endure, especially as they have always to contend against a public sentiment which discountenances their seeking industrial employment as a means of livelihood.

The theory which exists among conservative people that the sphere of woman is her home—that it is unfeminine, even monstrous for her to wish to take a

place beside or compete with men in the various lucrative industries—tells heavily against her, for manufacturers and producers take advantage of it to disparage her work and obtain her services for a nominal price, thus profiting largely by the necessities and helplessness of their victim. That so many should cling to respectable occupations while starving in following them and should refuse to yield to discouragement and despair shows a high quality of steadfastness and principle. [Applause.] These are the real heroines of life, whose handiwork we are proud to install in the Exposition, because it has been produced in factories, workshops and studios under the most adverse conditions and with the most sublime patience and endurance. [Applause.]

Men of the finest and most chivalric type, who have poetic theories about the sanctity of the home and the refining, elevating influence of woman in it, theories inherited from the days of romance and chivalry, and which we wish might prevail forever—these men have asked many times whether the Board of Lady Managers thinks it well to promote a sentiment which may tend to destroy the home by encouraging occupations for women which take them out of it. We feel, therefore, obliged to state in our opinion every woman who is presiding over a happy home is fulfilling her highest and truest function, and could not be lured from it by temptations offered by factories or studios. Would that the eyes of these idealists could be thoroughly opened that they might see, not the fortunate few of a favored class, with whom they possibly are in daily contact, but the general status of the labor market throughout the world and the relation to it of women. They might be astonished to learn that the conditions under which the vast majority of the "gentler sex" are living are not so ideal as they assume; that each is not "dwelling in a home of which she is the queen, with a manly and a loving arm to shield her from rough contact with life." Because of the impossibility of reconciling their theories with the stern facts, they might possibly consent to forgive the offense of widows with dependent children and of wives of drunkards and criminals who so far forget the high standard established for them as to attempt to earn for themselves daily bread, lacking which they must perish. [Great Applause.] The necessity for their work under present conditions is too evident and too urgent to be questioned. They must work or they must starve. Women everywhere in large numbers are actively engaged in the lowest and most degrading industrial occupations, laboring mainly as underpaid drudges, to the great profit of manufacturers and producers.

We are forced, therefore, to turn from the realm of fancy to meet and deal with existing facts. The absence of a just and general appreciation of the truth concerning the position and status of women has caused us to call special attention to it, and to make a point of attempting to create, by means of the Exposition, a well-defined public sentiment in regard to their rights and duties, and the propriety of their becoming not only self-supporting, but able to assist in maintaining their families when necessary. [Applause.] We hope that the statistics which the Board of Lady Managers has been so earnestly attempting to secure, may give a correct idea of the number of women—not only those without natural protectors, or those

thrown suddenly upon their own resources, but the number of wives of mechanics, laborers, artists, artisans and workmen of every degree—who are forced to work shoulder to shoulder with their husbands in order to maintain the family.

There are two classes of the community who wish to restrain women from actual participation in the business of the world, and each gives, apparently, very strong reasons in support of its views. These are, first, the idealists, who hold the opinion already mentioned that woman should be tenderly guarded and cherished within the sacred precincts of the home, which alone is her sphere of action; and, second, certain political economists, with whom may be ranged most of the men engaged in the profitable pursuit of the industries of the world, who object to the competition that would result from the participation of women, because they claim that it would reduce the general scale of wages paid and lessen the earning power of men, who require their present income to maintain their families. Plausible as these theories are we cannot accept them without pausing to inquire what then would become of all women but the very few who have independent fortunes or are the happy wives of men able and willing to support them? The interests of probably three-fourths of the women in the world would be sacrificed. Are they to be allowed to starve, or to rush to self-destruction? If not permitted to work, what course is open to them?

Our oriental neighbors have seen the logic of the situation far more clearly than we, and have been consistent enough to meet it without shrinking from heroic measures when necessary. The question is happily solved in some countries by the practice of polygamy, which allows every man to maintain as many wives as his means permits. In others, etiquette requires that a newly made widow be burned on the funeral pyre with her husband's body, while the Chinese take the precaution to drown surplus female children. [Murmurs of [illegible]nation.] It would seem that any of these methods is more logical and less cr[illegible] than the system we pursue of permitting the entire female population to live, but making it impossible for those born to poverty to maintain themselves in comfort, because they are hampered by a caste feeling almost as strong as that ruling India, which will not permit them to work on equal terms with men. [Applause.] These unhappy members of an inferior class must be content to remain in penury, living on the crumbs that fall from tables spread for those of another and higher caste. This relative position has been exacted on the one side, accepted on the other. It has been considered by each an inexorable law.

We shrink with horror from the unjust treatment of child widows and other unfortunates on the opposite side of the globe, but our own follies and inconsistencies are too close to our eyes for us to see them in proper perspective. Sentimentalists should have reduced their theories to set terms and applied them. They have had ample time and opportunity to provide means by which helpless women could be cherished, protected and removed from the storm and stress of life. Women could have asked nothing better. We have no respect for a theory which touches only the favored few who do not need its protection, and leaves unaided the great mass it has assisted to push into the mire. [Applause.] Talk

not of it, therefore, until it can be uttered not only in polite drawing-rooms but also in factories and workshops without a blush of shame for its weakness and inefficiency.

But the sentimentalist again exclaims: "Would you have woman step down from her pedestal in order to enter practical life?" Yes! A thousand times, yes! [Applause.] If we can really find, after a careful search, any women mounted upon pedestals, we should willingly ask them to step down—[laughter and applause]—in order that they may meet and help to uplift their sisters. Freedom and justice for all are infinitely more to be desired than pedestals for a few. I beg leave to state that personally I am not a believer in the pedestal theory—[laughter]—never having seen an actual example of it, and that I always suspect the motives of any one advancing it. It does not represent the natural and fine relation between husband and wife or between friends. They should stand side by side, the fine qualities of each supplementing and assisting those of the other. Men naturally cherish high ideas of womanhood, as women do of manliness and strength. These ideas will dwell with the human race forever without our striving to preserve and protect them. [Applause.]

If we now look at the question from the economic standpoint and decide for good and logical reasons that women should be kept out of industrial fields in order that they may leave the harvest for men, whose duty it is to maintain women and children, then by all the laws of justice and equity, these latter should be provided for by their natural protectors, and if deprived of them should become wards of the state and be maintained in honor and comfort. The acceptance of even this doctrine of tardy justice would not, however, I feel sure, be welcomed by the women of to-day who, having had a taste of independence, will never willingly relinquish it. [Applause]. They have no desire to be helpless and dependent. Having the full use of their faculties they rejoice in exercising them. This is entirely in conformity with the trend of modern thought, which is in the direction of establishing proper respect for human individuality and the right of self-development. Our highest aim now is to train each to find happiness in the full and healthy exercise of the gifts bestowed by a generous nature. Ignorance is too expensive and wasteful to be tolerated. We cannot afford to lose the reserve power of any individual. [Great applause].

We advocate, therefore, the thorough education and training of women to fit her to meet whatever fate life may bring, not only to prepare her for the factory and workshop, for the professions and arts, but, more important than all else, to prepare her for presiding over the home. [Applause]. It is for this, the highest field of woman's effort, that the broadest training and greatest preparation are required. The illogical, extravagant, whimsical, unthrifty mother and housekeeper belongs to the dark ages. She has no place in our present era of enlightenment. No course of study is too elaborate, no amount of knowledge and culture too abundant to meet the actual requirements of the wife and mother in dealing with the interests committed to her hands. [Applause]. Realizing that women can never hope to receive the proper recompense for her services until her usefulness

and success are not only demonstrated but fully understood and acknowledged, we have taken advantage of the opportunity presented by the exposition to bring together such evidences of her skill in the various industries, arts and professions as may convince the world that ability is not a matter of sex. Urged by necessity, she has shown that her powers are the same as her brothers' and that like encouragement and fostering care may develop her to an equal point of usefulness.

The board does not wish to be understood as placing an extravagant or sentimental value upon the work of any woman because of her sex. It willingly acknowledges that the industries, arts and commerce of the world have been for centuries in the hands of men who have carefully trained themselves for the responsibilities devolving upon them, and who have, consequently, without question, contributed vastly more than women to the valuable thought, research, invention, science, art and literature, which have become the rich heritage of the human race. Notwithstanding their disadvantages, however, a few gifted women have made their value felt and have rendered exceptional service to the cause of humanity.

The fact that the woman's building is so small that it can hold only a little of the beautiful objects offered has been a great disadvantage. The character of the exhibits and the high standard attained by most of them serve, therefore, only as an index of the quality and range of the material from which we have drawn. When our invitation asking co-operation was sent to foreign lands the commissioners already appointed generally smiled doubtfully and explained that their women were doing nothing, that they would not feel inclined to help us, and, in many cases, stated that it was not the custom of their country for women to take part in any public effort; that they only attended to social duties. But as soon as these ladies received our message, sent in a brief and formal letter, the freemasonry among women proved to be such that they needed no explanation; they understood at once the possibilities. Strong committees were immediately formed of women having large hearts and brains, women who cannot selfishly enjoy the ease of their own lives without giving a thought to their helpless and wretched sisters.

Our unbounded thanks are due to the exalted and influential personages who became, in their respective countries, patronessess and leaders of the movement inaugurated by us to represent what women are doing. They entered with appreciation into our work for the Exposition because they saw an opportunity, which they gracefully and delicately veiled behind the magnificent laces forming the central objects in their superb collections, to aid their women by opening new markets for their wares. This was the earnest purpose of their majesties, the Empress of Russia and the Queen of Italy, both so noted for the progressive spirit they have displayed in promoting the welfare of the women under their kindly rule. They have sent large collections of the work of peasant women through organizations which exist under their patronage for selling their handiwork. The collection of her personal laces sent by Queen Margherita is one of the most notable features of the Exposition.

The committee of Belgian ladies was kind enough to take special pains to comply with our request for statistics concerning the industries and condition of

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2. Mrs. J. Frank Ball, *Delaware.*
3. Mrs. Eliza J. P. Howes, *Michigan.*
4. Mrs. Sarah S. C. Angell, *Michigan.*
5. Mrs. J. Eliza Rickards, *Montana.*
6. Mrs. Clara L. McAdow, *Montana.*
7. Mrs. S. W. McLaughlin, *North Dakota.*
8. Mrs. W. B. McConnell, *North Dakota.*
9. Mrs. Jno. R. Wilson, *South Dakota.*
10. Mrs. H. M. Barker, *South Dakota.*
11. Mrs. Ida Loving Turner, *Texas.*
12. Mrs. Mary A. Cochran, *Texas.*
13. Mrs. Jno. S. Wise, *Virginia.*
14. Mrs. K. S. G. Paul, *Virginia.*
15. Mrs. E. C. Langworthy, *Nebraska.*

women, notwithstanding the fact that the collection of statistics is not in Europe so popular as with us. It has sent complete reports, very attractively prepared, in the form of monographs and charts, giving details which have been secured only by great personal effort. These figures have never before been obtained in that country, and the committee itself is surprised at the great amount of novel and valuable information it has succeeded in presenting.

Her Majesty, the Queen of England, has kindly sent an exhibit of the work of her own hands, with the message that, while she usually feels no interest in expositions, she gives this special token of sympathy with the work of the Board of Lady Managers because of its efforts for women. [Applause.] That the English Committee has included in its exhibit and in its catalogue a plea for the higher education of women is in itself a significant fact.

Her Majesty, the Queen Regent of Spain, has kindly sent some relics of a former ruler whose name is so closely associated with that of the discoverer of our continent. [Applause.]

The orient has not been behind in its efforts to co-operate with us, although it has succeeded in doing so only on a limited scale and in many cases unofficially. We have received the most pathetic letters from those countries, in which women are only beginning to learn that there is a fuller development and a higher liberty of action permitted their sex elsewhere. Japan, under the guidance of its liberal and intelligent Empress, has promptly and cordially promoted our plans. Her Majesty, the Queen of Siam, has sent a special delegate with directions that she put herself under our leadership and learn what industrial and educational advantages are open to women in other countries, so that Siam may adopt such measures as will elevate the condition of her women. [Great applause.]

The Exposition will thus benefit women, not alone by means of the material objects brought together, but there will be a more lasting and permanent result through the interchange of thought and sympathy from influential and leading women of all countries, now, for the first time, working together with a common purpose and an established means of communication. Government recognition and sanction give to these committees of women official character and dignity. Their work has been magnificently successful and the reports which will be made of the conditions found to exist will be placed on record, as public documents, among the archives of every country. Realizing the needs and responsibilities of the hour, and that this will be the first official utterance of women in behalf of women, we shall weigh well our words, words which should be so judicious and convincing that hereafter they may be treasured among the happy influences which made possible new and better conditions. We rejoice in the possession of this beautiful building, in which we meet to-day, in its delicacy, symmetry and strength. [Applause.] We honor our architect—

[Mrs. Palmer was here interrupted by a spontaneous outburst of applause, the lady managers and their friends vying with the men present to see who could applaud the loudest. Mrs. Palmer smiled pleasantly and, dropping her manuscript, joined heartily in swelling the applause of the assemblage. She then continued:]

We honor our architects and the artists who have given not only their hands but their hearts and their genius to its decoration. For it women in every part of the world have been exerting their efforts and talents; for it looms have wrought their most delicate fabrics, the needle has flashed in the hands of maidens under tropical suns, the lace-maker has bent over her cushion weaving her most artful web, the brush and chisel have sought to give form and reality to the visions haunting the brain of the artist—all have wrought with the thought of making our building worthy to serve its great end. We thank all for their successful efforts. The eloquent president of the commission last October dedicated the great exposition buildings to humanity. We now dedicate the woman's building to an elevated womanhood—[Applause]—knowing that by so doing we shall best serve the cause of humanity.

At the conclusion of the address of Mrs. Palmer, the lady managers arose and expressed their appreciation of the magnificent address of the President of their Board by giving the "Chatauquan salute."

Germany's representative, Mrs. Kaselowsky, gave a short description of the exhibit from her country under her charge, which is one of the largest in the woman's building.

Princess Schachoffsky, commissioner from Russia, then spoke as follows:

MRS. PRESIDENT AND LADIES:—I begin by asking your indulgence. The slight knowledge I have of the English language, which I am obliged to use the very first time I address any audience, makes it still more difficult and intimidating when the audience is the one I have before me—so numerous and consisting of all the leading and representative women of America, which all over the world is known by her prominent women. I wish to tell you that, though so very far away, we have many sympathisers in common, and the women in Russia through me hoped to stretch and clasp hands with their American sisters. All those that I met offered me all the information they could give concerning our women and their work in all departments, which, though not so numerous as yours, have a very wide extent. One of the widest is to find profitable employment for the peasant women, and in the last few years several industries have been started with much success, by many of the wives of our landed proprietors and lady landowners. Samples of these you will see in our section of the women's building, which, unfortunately is not yet ready, and I hope you will be pleased with them.

It is not the moment and I do not feel equal to the task of giving even a faint outline of all that is being done by our women, but some things and names I must mention. The high class education having been open to them since 1872, more than 700 women doctors are doing a lovely mission all through the country, and when you know that 15,000,000 Mohamedans form in the east part of our population, so that 7,500,000 women are entirely dependent on their own sex for medical help, not being allowed to see men, you will understand what a boon a woman doctor is in our country.

Princess Schachoffsky had to rise and bow again and again in response to the applause that followed her address. Then came one of the most pleasant incidents of the occasion. Mrs. Ralph Trautmann, the vice-president from New York, and chairman of the committee on federal legislation, suddenly advanced to where Mrs. Palmer was sitting. She addressed the president in praise of her work, and, referring to her as the queen of fame, presented her with a silver laurel wreath.

"This is our crowning day of glory," Mrs Trautmann said. "When we grow old may we look back to this occasion with a pride that can never diminish."

The two women then arose and clasped hands, while every lady manager and everybody else stood up on their chairs in impressive silence. The effect was heightened by Mrs. Trautmann presenting Mrs. Candace Wheeler, director of the building, and Mrs. MacMonnies, the artist, to the audience.

The final number of the programme had been reached, and Mrs. Rickards, of Montana, made her way to the stage to present the golden nail to Mrs. Palmer. Her address was read so distinctly as to reach all parts of the big hall. It was graceful and eloquent, fully meeting the demands of the occasion. As she handed the shining nail to Mrs. Palmer a cheer broke forth. It was a trying moment to Mrs. Palmer. She took the nail and looked at it rather doubtfully, while a smile came over her face. With a few words of acceptance, she referred laughingly to the new role in which she was about to appear. Everybody was wondering whether Mrs. Palmer was going to hit her fingers with the glittering silver hammer, that she took from a plush covered case. Anxiety was pictured on the faces of hundreds of women who watched with absorbing interest. An oblong block of wood lay on the table in front of Mrs. Palmer that had been contributed by the women of Washington. Everybody knew without being told that that block was going to receive the nail if Mrs Palmer succeeded in hitting it on the head every time. As she placed the point of the nail on the block, Mrs Palmer paused to look triumphantly at the audience. She raised the hammer aloft, and with a smile let it fall on the yellow head of the nail. It sank to a suspicious depth in the block at the first blow. Then, while the lady managers waved their handkerchiefs and everybody else applauded after her own fashion, Mrs. Palmer dealt blow after blow until the nail had been driven its full length.

Theodore Thomas waved his baton once more and the entire audience joined in singing "America." With the pronouncing of the benediction the ceremonies came to a close.

Theodore Thomas waved his baton at his singers and players and the "Jubilate," by Mrs. H. H. A. Beach, of Boston, filled the building with waves of melody that drowned the sound of clapping hands. The presentation of a flag of American silk which was carried at the head of the procession to Jackson Park during the ceremonies of October, 1892, was then made by G. W. Knapp. When he concluded his speech he presented Mrs. Palmer with a piece of fringe cut from the flag with a pair of souvenir scissors. The scissors were presented to Mrs. Palmer by Mrs. Sol Thatcher, one of the lady managers of Chicago, with the following address:

MME. PRESIDENT:—I have the honor to present to you the silver scissors with which the souvenir was cut from the woman's flag. These scissors, though of beautiful workmanship and purest silver, are most celebrated for their magical qualities. They came from the far east, from the land of the astrologer and the necromancer. It is said that the happy possessor of this talisman need never fear entanglement.

The addresses of the distinguished women from foreign lands were one of the most interesting features of the exercises. The Duchess of Veragua presented her compliments and excuses to the audience through Mrs. Palmer, not having a sufficient command of the English language to make herself understood. As she arose and bowed she was greeted with great applause. Countess di Brazza, of Italy, was unable to appear because of sickness in her family and Mme. Mariotti acted as her representative. She spoke in tones easily understood and told of her distinguished kinswoman's efforts to elevate the condition of Italian women. Mme. Mariotti also related how it became possible for the women of Italy to make an exhibit for the first time at a foreign exposition.

Mrs. Bedford Fenwick, commissioner from England, made an interesting address, largely descriptive of the social conditions prevailing among the women of her country and also gave an account of the character of the English exhibit in the woman's building.

Lady Aberdeen had become so well known through her former visits to Chicago, and her great prominence in philanthropic work, that she was received by the audience with a warmth almost as pronounced as that which marked Mrs. Palmer's reception. It was a compliment of the most graceful description, and the noted woman showed unmistakable signs of appreciation.

"I feel it to be a great honor," Lady Aberdeen said, "to take part in these ceremonies, to which all the women of the civilized world have turned their eyes. We have heard from Mrs. Palmer what we hope to realize. I take it that one of the objects of this friendly emulation among women is to show how much they have served their countries. If I am right in this conclusion I am proud to stand here as the representative of the two countries in which I claim nationality—Scotland and Ireland." Lady Aberdeen alluded in glowing terms to the laces contributed to the exhibit by the Irish peasant women, and said that much good was expected to come out of the opportunity afforded to display them to the world.

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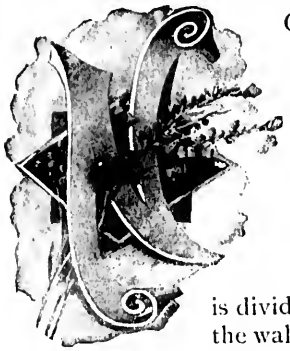
1. Miss H. T. Hundley, *Alabama.*
2. Mrs. Anna M. Fosdick, *Alabama.*
3. Mrs. James P. Eagle, *Arkansas.*
4. Mrs. Rollin A. Edgerton, *Arkansas.*
5. Mrs. R. J. Coleman, *Colorado.*
6. Mrs. Susan R. Ashley, *Colorado.*
7. Miss Francis S. Ives, *Connecticut.*
8. Mrs. Isabella B. Hooker, *Connecticut.*
9. Mrs. Whiting S. Clark, *Iowa.*
10. Miss Ora E. Miller, *Iowa.*
11. Mrs. E. C. Burleigh, *Maine.*
12. Mrs. L. M. N. Stevens, *Maine.*
13. Mrs. Francis B. Clarke, *Minnesota.*
14. Mrs. H. F. Brown, *Minnesota.*
15. Mrs. John S. Briggs, *Nebraska.*

CHAPTER IV.

OTHER FEATURES OF THE WOMAN'S BUILDING.

Illustrated English Hospital Methods—Costumes of the Nurses Displayed to Advantage—Even the Demonstration of Intense Suffering Proves of Great Interest—Surgical Instruments Used by Nurses—Opal Glasses Used for Measuring Medicines—Display of Infants' Hygienic Clothing—Models of Nurses—The Dainty Dietary Section—Gowns and Caps of the Sisters of St. Thomas—Egyptian and Arabian Nurses in Nursing and Holiday Attire—Miss Marsden's Model Siberian Leper Village—What a Denver Woman Would Do Illustrated—Work of Navajoe Indian Women—Work of East Indian Women—Rare Specimens of Needlework—Mrs. Rogers' Culinary Lectures and Examples in Cooking.



O room in the Woman's Building is attracting more attention than that in which the British nursery exhibit is displayed. This is under the control of the British royal commission, under the presidency of Mrs. Bedford Fenwick, who is herself a practical and professional nurse. The exhibit is in charge of Mrs. Bond, at one time one of Her Majesty's nurses. Mrs. Bond has, for noble service rendered in her profession, been the recipient of four medals, noticeably that of the Royal Red Cross, conferred by Queen Victoria. The exhibit is divided into sections and is placed in large glass cases against the walls. The first section is devoted to specimens of all sorts of ligatures and bandages used in binding wounds and in hospital service. The bandages are of all materials, from gauze to oil silk, and are in infinite variety. A model of a rack for holding bandages is in this collection. Below are the surgical instruments used by nurses in their profession, including everything from a cambric needle to syringes and cases of scissors. Every sort of thermometer from the wall thermometer to that used for testing children's food is here. Particularly interesting are glasses for measuring medicine, made of opal glass. These are intended for use in a dim light and are a great protection. This section also contains a set of crockery to be used in typhoid cases, consisting of all the paraphernalia of the sick room. Each piece is marked typhoid and the use of it is considered necessary in order to avoid contagion.

The second section is devoted to hygienic clothing designed by Miss Franks, of London, the different articles being such as are worn by British professional nurses and by them recommended to their patients. Of course all articles displayed in this section are for underwear, and consist of flannel undergarments, ventilated corsets for summer wear and knit ones for winter, stockings and the hygienic shoe

invented by Mrs. Fenwick. This shoe is adapted for the sick room and is modeled on the human foot. It is well ventilated, has steel springs over the instep and a rubber heel, rendering it perfectly noiseless. The Eureka stocking clipper attracts the attention of most women, promising as it does relief from the uncomfortable garter. The clipper is so adjusted as to bear on no vein, and thus perfect comfort and perfect freedom are secured. Infants' hygienic clothing is also displayed, and here the articles are complete throughout, from the tiny inner band to the outside robe.

The next section is devoted to splints, padded in various materials, and to different baskets and bags used by nurses. The first to attract attention is Mrs. Fenwick's ward basket, which is stocked with everything in daily use by nurses and the wonder is how so much can be packed in so small a space. Nothing is lacking. There is the boxwood powder box, the bottle for rectified spirits incased in boxwood, brush, comb, nail brush, tooth brush, whisk broom and duster. The bag used by the Queen Victoria jubilee nurses in their work among the poor is also on exhibition and is, like the ward basket, very complete in appointments, containing nearly one hundred articles. This is of oil silk, but instead of toilet articles, it contains necessary articles for the sick, antiseptics, etc.

A pitiful section is that in which doll models are use to depict children in all stages of suffering. Here a maternity nurse in pure white holds in her motherly arms an infant in long robes. On a steel tent bedstead lies a little one who has undergone the operation of tracheotomy. Beside the bed stands the steel steamer which furnishes the warm air she breathes through the tube in her throat. On another bed is a little girl under three years of age slung for fracture of femur, for vertical extension. Special clothing incases the little limbs and flannel covers the chest. There is, too, the model of a child suffering with hip disease, limbs extended by means of the Bryant splint, and the same child convalescent and lying on a flat couch, clothed in flannel. Another little one in long, woolen garments is in the arms of the nurse, all ready for an operation.

Another exhibit which appeals strongly to the heart of the philanthropist is the model of Kate Marsden's Siberian leper village. Miss Marsden is a professional nurse of the order of the Red Cross, an English girl whose heart was moved with pity for the sufferings of the lepers in the lonely depths of the forests of Siberia. Of her own accord she started on the mission which has become her life-work, and no more thrilling account of adventures, whether by land or sea, can be found than the story of her heroic search for those who since time was have been accursed. She traveled 7,000 miles, 2,000 of them on horseback. Even after she reached her journey's end her search for the unfortunates was long and tedious, but at last she found them, in the heart of the forest, living in rude mud huts, in the deepest degradation and despair. Her appeals for help touched the heart of her queen, Victoria, and reached the ears of the Empress of Russia. They are rendering her assistance. In Russia and Siberia she raised money enough to erect temporary habitations for the lepers, and she is now in America for the purpose of raising more money with which to complete her plans. She is at present in

Chicago, and can almost any time be found in her section. The exhibit at the Fair consists of photographs and autograph letters, and a plan of the village, or rather leper station, which stands in the northeast portion of Siberia, in the province of Takulsh. There are two immense hospital buildings for the use of those utterly incapacitated for work, surrounded by a village of smaller houses, where leper families can live as happily as it is possible for those so affected to do. The village itself is located on a river, and back of it is a lake. The whole—as well as the small huts in which the wretched people lived when found—is faithfully reproduced in the model.

The women of Colorado make three interesting exhibits. The first is the model of the house designed by Mrs. Coleman Stuckert of Denver for co-operative housekeeping. For fifteen years Mrs. Stuckert has been working on this plan as a solution of the servant girl problem. Her design provides for forty-four homes, which will have from four to twelve rooms each, and will be entirely separate from one another by sound-proof walls. They are to cover one block in Denver. The houses will be occupied by the stockholders and no one will have a kitchen. But in the inclosure formed by the houses will be a large common kitchen and a common dining-room, with thirty-four tables, each seating six persons. A common laundry, a boiler and engine-room, and an electric-light plant are provided. The families who occupy the homes in this community are to employ a competent steward and buy their provisions in common at wholesale prices. First-class cooks will be employed and meals will be served either in public dining-rooms or in private apartments. These houses will be of marble, and as far as possible fireproof. The model, which is on exhibition, is made of plaster of paris.

A thousand specimens of Colorado wild flowers, scientifically arranged by Miss Lanning, represent the beauty of the State's flora.

Many interesting Indian collections have been secured from the Navajo Indians, who live on the reservation in the southern part of Colorado. The alcove in the southwest stair landing has been ornamented with the blankets woven by these Indian women. Two Indian women from the Navajo tribe weave blankets in this booth. The blankets are of bright reds and of different designs. Indian shields and drums, made of decorated skins, jewelry, beaded work, belts, bows and arrows, and basket work are shown in the exhibit. A bust of the Indian Chief Ignacio of the Southern Utes, carved from sandstone by Miss Nichols of Denver, is placed at the entrance of the booth. A pair of locked antlers hang just over the entrance. These were loaned by Mrs. E. B. Harper of Durango. The arrangement of the exhibit has been directed by Miss Laura B. Marsh of Denver, who has succeeded in bringing into prominence the work of the Indians.

The exhibit in the British section is very interesting, especially the loan collection of articles brought from India and of great value because much of the work can never be duplicated. The articles have been gathered by British representatives in that domain, and the loan is made to illustrate the art of needlework, centuries old, of the Indian women.

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Mr. Archibald Constable loans specimens of various kinds of eardrops made and worn by women in Peshawar. These are called phumni (silk and tinsel tassels) and are made out of waste silk which becomes entangled when preparing the floss silk for embroidery. He also sends a bourkha, or wrapper, used by Mohammedan women of Peshawar when going through the streets to visit their friends; English long-cloth embroidered with yellow Indian silk, the eyeholes in white cotten thread embroidery. This bourkha was made and embroidered by the wife of a member of an old Pathan family in Peshawar; a bodice embroidered and worn by Hindu women at Sukkur on the Indus; four specimens of the ornamentation of the inside of sole of women's slippers; four pieces of embroidered Peshawar leather work, intended for a bag.

Lady Bayley loans a Suzanni silk embroidery on coarse cloth, worked by Punjabi women; a piece of red tartan cloth woven by the women of a Burmese tribe (Fakiahs) in Upper Assam, notable for the tartan pattern; red silk embroidered borders woven expressly for the Manipur Durbar and given as presents on state occasions.

There is a Toda cloth and bag made by the Todas, a race of people who live on the Nilargiris Mountains. They have inhabited the hills of Southern India for centuries, are a pastoral race, and their women hold a position in the family quite unlike what is ordinarily the case in oriental nations. They are treated with respect and are permitted much freedom. Their number does not exceed 800. This was a loan by Mrs. David Carmichael, who also sends pocket handkerchiefs worked by two Mohammedan girls, 8 years of age, in the Hobart School at Madras; a wedding cloth worn by Jat and Baishnava women, woven and embroidered by them. The red ground is woven but all else is embroidered. Two years' time was required to make the cloth, and it is only worn on a wedding day.

Then there is a piece of embroidery worked by the Princess of Wadwhan; a red cloth Phulkari called the Shishadar (looking-glass) embroidered in cream, yellow, and green silks worked by the women in the Punjab—small, circular, slightly convex mirrors being sewn in the pattern. It was loaned by Lady Lyall.

A scarf woven by a Tipperah woman, of the aboriginal tribe of the Hill of Tipperah, is sent by Mrs. Ganguli, and also an Assamese lady's dress woven by women, a Nekhala skirt, a Rheiha wrap, and an Artria overshawl, a basket of bamboo made by lower caste women of Calcutta, containing models of fruit made and colored by Bengalese women; four molds carved for the making of sweetmeats, two of clay and two in stone; a model of a pearl and precious stone necklace.

In the collection are cut paper pictures done by a widow of Dacca and Benares Saree with silver embroidery done by women of Benares; a Parsee boy's dress made by the sister of Sir Famsetjee Feejeeboy and presented by her to Mrs. Arthur Oliphant; a Mohammedan boy's dress made by the Padshah Begum, wife of the first Sir Salur Fung Bahadur; a tablecloth worked in gold embroidery by a lady of Bhera in Shahpure and the Indian Phulkari, or looking-glass worked by an attendant in the house of Rai Bahadur Bakshi Ram Singh, of Rawalpindi, Punjab.

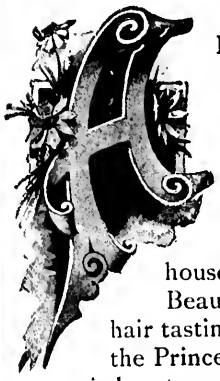
A whole day or an entire week may be spent entertainingly in the Woman's Building, and then one-hundredth part only could be faithfully seen and studied. In the grand halls are paintings of American, French, German, Italian, Spanish and other nations, which would make a fine gallery in itself. And, there are tapestries, laces and embroideries, that would measure more miles than there are between Chicago and Milwaukee. A special feature for a long time were the lectures on, and examples in, cooking, by Mrs. S. T. Roger, of Philadelphia. It will be a long time before such an aggregation of woman's work, as may now be seen in the Woman's Buiiding, can be gathered from all parts of the world again.

MARBLE STATUE "SPRING"—MME. L. CONTAN, FRANCE.

CHAPTER V.

THE CHILDREN'S BUILDING.

The Prettiest Playhouse and Nursery Ever Constructed—Panels Containing the "Sleeping Beauty in the Wood"—"Silverhair and the Bears"—Rosy Cherubs and Opalescent Clouds—Sweet and Wise Sayings on the Walls—"Come, Let Us With Our Children Live"—What a Columbian Guard Found in the Manufactures Building—A Little Girl Baby in the Corner—Mrs. Oliphant Chant's Plan for the Children and the Children's Building.



AN outgrowth of Woman's work was that structure known as the Children's Building—an afterthought, so to speak. "Oughtn't we to have a place where the children can be taken care of while their mothers may go their way and enjoy an hour or more without uneasiness?" asked Mr. Rue, of California, one day. "What an idea!" exclaimed Mrs. Palmer; "I'll see Mr. Burnham about this at once. The children shall have a pavilion, and it shall be the biggest playhouse in the world. They shall have panoramas of the Sleeping Beauty in the Wood, and dear little, curious, naughty Silverhair tasting the porridge of the Three Bears; and we'll have a picture of the Prince putting the glass slipper on the foot of Cindrella." All this was carried out, and more too; for the building then dreamed of was completed in May, and from that time on it became a joy to tens of thousands of children of a tender age. These legends were placed in panels 10x4 feet wide, in pairs, in three of the four corners of the large assembly room, the space in the fourth corner being pretty well taken up by doors. Then along the south and east sides of the room, between the long windows, were medallions representing various occupations of children, alternating with others in which child figures represented the signs of the zodiac. For instance a dimpled little maid with a lion did duty for Leo, a baby teasing a crab for Cancer, and a very small archer with a big bow for Sagittarius. These medallions were not painted realistically like the pictures of fairy tales or of occupations, but were monochromos, paintings, or rather drawings in a single color, which in this instance was a dull pink. Both the circular and the long panels were framed in a conventional border of laurel leaves which had grayish-blue shadows, and the whole series was connected by a wide band of gold color. These ran all around the room as a species of frieze, with a stenciled border on both sides connecting the various panels. Its yellow color, with the pink of the zodiac medallions and the dull blue for the leaves, represented in a way, the three primary colors of which all other colors are modifications.

MEDALLION.
DECORATION ON CHILDREN'S BUILDING.

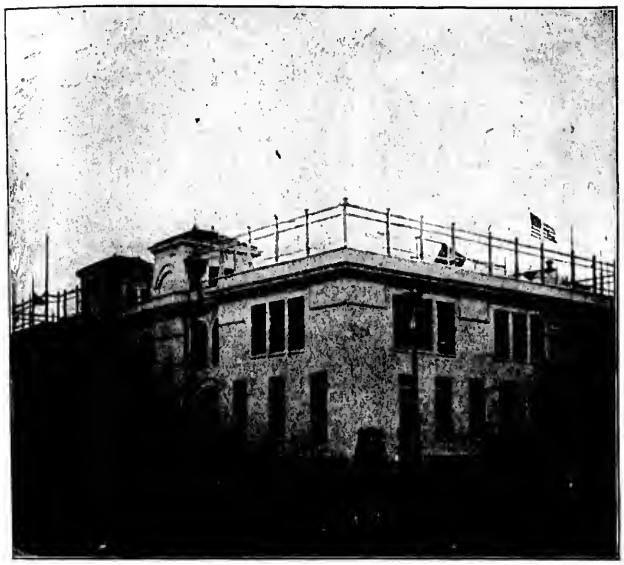
On the side of the room where there were no windows the places between the round panels were filled by imitation marble tablets, inscribed with some of the sweet and wise things that have been said about little children, as: "Little children love one another," "The hope of the future lies in the children," "And babes shall rule over men," "Trailing clouds of glory do we come from God," "And a little child shall lead them," "Deep meaning often in the child's play lieth," "Come, let us with our children live." At the north end of the room two of the most charming of all panels were "Dawn" and "Twilight," as personified by rosy cherubs amid opalescent clouds. In the library a beautiful ceiling was designed of cherub Pleiades, "like a swarm of fireflies tangled in a silver braid." This was a circular panel ten feet in diameter, surrounded by a border of conventionalized ivy suggested possibly by "the casements' mild shade" from which the poet watched the stars.

The building, like that of the Woman's, is a plain and substantial structure. It is 150 by 90 feet, two-storied, with a roof garden, which in reality is a playground for the little ones. It is inclosed with a strong wire netting to insure safety, and is made attractive by vines and flowers. Toys of all nations, from the rude bone playthings of the Eskimo children to the wonderful mechanical and instructive toys of modern times, are exhibited under cover in the garden, and all are used to entertain children. Trustworthy nurses are in charge of the garden, as well as of the department of public comfort in the building, and no hesitancy was ever felt in leaving children in their care. Of course a small fee was exacted, but the mother had the satisfaction of knowing that every want of her little one was being provided for. The educational exhibit is a perfect one, and begins with the earliest training of children. Miss Maria M. Love, of Buffalo, N. Y., a member of the Board of Lady Managers, carries on a modern

BOTANY.
DECORATION ON CHILDREN'S BUILDING.

creche, to which a large, airy room is devoted. In this is demonstrated all that is rational and comfortable in caring for and dressing children. Lectures are delivered upon food, clothing and sleeping arrangements, and in the creche is also included an exhibition of the clothing of infants and of cradles used in all times and by all nations.

Succeeding the creche are the kindergarten and kinderkitchen. Everyone knows what the kindergarden means. Not so many are acquainted with the kitchengarden, of which Miss Emily Huntingdon, of New York, was the founder, and which is designed to teach classes of little folks, especially the children of the poor, the arts of housekeeping, all in so interesting a way that sweeping, cleaning, dusting, and cooking become a delight and not a task. Physical development is illustrated by the North America Turner Bund, with the hope of inspiring children with a desire to seek physical perfection. An assembly-room is provided where rows of chairs and a platform, from which are delivered stereopticon lectures on the subjects of foreign countries, their languages, manners and customs, as well as the most important facts in their history. There is also a children's library, under the charge of Mrs. Clara Doty Bates, chairman of the committee of literature for children of the congress auxiliary. Generous responses were made to the request sent out by the Board of Lady Managers for contributions to the library from foreign countries, as well as our own, and many autographic manuscripts of contributors to *St. Nicholas* and other children's magazines are to be seen.



CHILDREN'S BUILDING.

Pennsylvania has a department showing the wonderful progress made in teaching the deaf and dumb. Miss Mary Garrett has charge of this department, and daily demonstrations are made.

The government contributed the Ramona Indian school, the living testimonial which stands to the memory of Helen Hunt Jackson in Santa Fe, N. M.

No appropriation was made by the Exposition authorities for the Children's Building. The Board of Lady Managers assumed the entire responsibility of

raising the money for its erection, and Mrs. Potter Palmer and the Friday Club raised the necessary funds for its equipment and maintenance. The money employed in its erection was contributed by the different States.

And while on this subject of children, the author is reminded that at 8:30 o:clock on the evening of May 3rd there was born to the Exposition a baby—a girl. To be sure, she was a foundling, but her welcome was as warm as though she had come clothed in purple instead of a coarse gray wrap. This baby's coming was highly romantic. She was found in the northeast corner of the Manufactures Building by Guard John O'Herns while he was going his rounds. He said that while he was passing the exhibit of a firm of French perfumers he heard what he thought sounded strangely like the crying of a child. He made a search with his lantern and discovered that he was correct. He found the baby wrapped in a gray blanket shawl. He called one of a number of scrub women who was at work near by and she took charge of the child. An attempt was made by the guard to call the ambulance, but Mrs. Martha Bauerman, the forewoman of the scrubbers, said the women would take care of the baby. After a whispered conversation the women gave the child to a Mrs. Reichster, who was working with them. They said she had just lost an infant child by death, and was willing to take charge of the foundling. Mrs. Reichster was allowed to go to her home at once by the forewoman. The guards detailed in the big building were jubilant over the discovery and raised a purse of several dollars for the baby on the spot. The babe was apparently about two months old. It is a girl with very light hair and brown eyes, dressed in coarse garments, and there was nothing to lead to identification.

The author spent many a delightful hour in the Children's Building watching the babies, and the boys and girls who preferred the fun of the pavilion to the Court of Honor, Transportation Building, Palace of Fine Arts, or anything else. But the babies! He has seen two hundred at a time—fat, thin, crying, laughing, quiet, kicking, healthy, sickly, black, white and copper-colored ones. It was the prettiest, jolliest and noblest nursery in the world, and better than Barnum & Bailey's four ringed circus at its best.

MRS. CHANT'S PLEA FOR THE CHILDREN AND THE CHILDREN'S BUILDING.

LEFT London with all of its poverty and attendant misery and came to the progressive and most *American* of cities —Chicago. Here I found myself, where all visitors go, in a veritable earthly Paradise, as I visited your World's Fair. And yet, in all that grandest architectural display the world has ever known, was there anything that touched my heart as did the building dedicated to the Children, for that touches the "high water mark" of 19th Century progress, for its effect is to be felt not only on our own generation, but upon succeeding ones.

We are just becoming aware of the fact that this is the most glorious age that childhood has known, for while we have wasted our brain-fibre for generations in inventions by which to shorten the hours of labor and to lengthen those of pleasure for grown people, yet it has been reserved for this generation to make even a picture book for a child where the fox un-labeled would not be mistaken for the dog! And yet at the World's Fair may be found a happy home arranged entirely for children with every known means of diversion and entertainment that thoughtfulness can suggest, with motherly matrons and kind attendants in charge of it. Think of the mothers who are thus left free during the whole day to enjoy the beauty of that grand architectural display surrounding them on every side, or to wander at pleasure among the rare works of art, and of the effect on the happy children who are refreshed by the change from the over-fatigued mother to the care of restful attendants and charmed by the new and novel diversions on every side. Enough cannot be said in praise of your work, and we are behind the women of America in our work on the Eastern shores of the Atlantic in our means of benefiting humanity by making the world a happier place to live in.

In my own philanthropical work I have discovered that I can always be sure of prompt and efficient material aid from benevolent women whenever I speak or write on the subject of Reform, be it what it may, but when I make a plea for the "Home" that we have instituted near London, simply for the purpose of making brighter and happier the lives of the miserable and poor, society at once takes alarm and I am met with repeated cries of dismay, and the fear is expressed that I may change the color of the social fabric by introducing an element hitherto unknown within its sacred precincts.

When our "Home" was first opened, I took with me from London twenty-five *ballet* girls—be not shocked!—for an artificial life, lived out under the glare of

lime lights, tinsel dresses and spangles, is not soul satisfying, even to a ballet girl as three weeks of pure air and sunshine with wholesome home influences proved in its effect on these girls who returned to London sun-burnt and happier than they had ever been in their lives before. I wish that you all might have heard their expressions of gratitude and their promises to help others who had not shared with them their luxurious holiday.

Surely the noblest result of this age of progress has been the establishment of these institutions for making children happy, for even we, the "Children of a larger growth" are always good when we are happy, then life becomes a most interesting and enjoyable affair, yet we forget that a happy childhood is the grandest foundation for future greatness in man or woman, so I make a further plea for the furtherance of "Fresh-air Excursions" and Sanitariums for children.

Do you realize that the tendency of city life is toward artificiality, that only in solitude is character deepened and the soul developed? Take a child from some alley home, give it sunshine, birds, flowers and trees and study the effect, then I need not talk or write, for the American only needs the suggestion. When I hear that the Children's Building was made possible as the result of noble charitable enterprises on the part of your noble women, and see the successful result of your work in the number of children you have already made happy by your experiment, I look beyond and see a power for doing good among you that should not be content with present results, but still further the movement already made by new institutions that will give the highest reward possible to any life, that of making the world a happier place to live in after we have left it.

Yours most sincerely
L. Ormiston Chant.

THE WORLD AND THE WORLD'S FAIR.

AN ARTICLE BY THE DIRECTOR-GENERAL.

IT was my recent privilege and duty, as a servant of the United States Government, to appear before the Committee on the World's Columbian Exposition of the House of Representatives at Washington, for official consideration of the further financial needs of the World's Fair of 1893, at Chicago. I there undertook, by the detailed view of the popular interest in our Exposition, to indicate the propriety of further governmental support, and in that detailed view, I was enabled, through the generosity and enterprise of the American states, to complete a splendid catalogue—a roster of unexampled pride, magnanimity, enterprise, progress and hope. Appealing to the statesmanship of my country, I thus made plain that all classes, all colors and all nationalities of citizens under our flag are anxious for an opportunity to make known to the world their love for our nation, and their material and intellectual advancement under our free institutions.

Yet, with all the particularity which was needed to express the doings of half-a-hundred states and nearly seventy millions of free people, I had but entered under the lintels of the World's Columbian Exposition. The world itself was still to be touched upon. How had that Elder World received the tidings of our gratitude to Christopher Columbus, and, through him, to the ages and the eons that have brought mankind to the Nineteenth Century? Such was the thought which was presented to Congress. And let my thought serve as a text of this article.

Before our law-givers was unrolled the scroll of the nations, where feeling and purpose among peoples and races became as one language of peace and fraternity. Here let me begin:

The home of the sturdy Norseman, the land of history and courage and song, not larger in population than some of our States—this kingdom of Norway and Sweden has set aside a sum of more than $110,000, and little Denmark $67,000 more. These people are among us by the million, and they rank with our most intelligent and patriotic citizens. They take great pride in what the home government is doing for the Exposition, and the former citizens of those nations now with us are raising large amounts here for the purpose of properly entertaining and greeting the representatives of their home governments.

France, our sister republic, proud, courageous and progressive; historic, wealthy France, with golden threads of sacrifice, woven and interwoven through

the mantle of our national history—France has accepted our invitation, and has appointed on her commission such men as Berger, the distinguished Director-General of the Paris Exposition, and Proust, the government art director, and placed at their disposal $631,000 to properly participate in our Exposition, as requested by this government

And by the side of France stands the great empire of Germany. Millions of her industrious, scholarly and philanthropic sons are among the best and bravest citizens of this nation. It is said that the emperor has interested himself regarding the place which his people shall take in the great civic trial of advancement and progress to be witnessed at Jackson Park in 1893. Every foot of space that could be allotted to this powerful nation was accepted long ago by German exhibitors. Their commissioner, Herr Wermuth, has visited us; they have the plan of the building and of the site and the space they are to occupy and their preparations are advanced. To show the friendship and interest of Germany, over $800,000 have been appropriated by the Empire for the proper acceptance of America's invitation.

Nor has Austria-Hungary failed in these civilities and comities of the Great Powers. The government at Vienna has appointed a commission, consisting of the emperor's brother, the minister of commerce, and other representatives and illustrious leaders of that nation. Millions of her sons are today citizens of this country, and they are looking forward with a pardonable pride to the great preparations now being made in fatherland for the Fair. Austria-Hungary has placed 150,000 florins, as a preliminary appropriation, at the disposal of her commission.

The government of Russia has assumed the entire charge of the exhibit from that country. Her messengers have been sent to all parts of that wonderful domain to gather the richest and finest of her products. The expense of the collection and the transportation to the Fair and return, the care of the exhibits and all expenses are provided for under the direct charge of the officers of the government. This nation, with continents for her domain, with 110,000,000 of people to do her bidding, with history and wealth and ambition and friendship to inspire her action, will present an exhibit which will not probably cost less than $1,000,000 to display,

Recent debates in parliament have shown that the pride of Great Britain is at stake, and that her leaders, governors and statesmen are thoroughly alive to the situation. The appropriation has been increased by the cabinet, and the charges for space have been wholly or partly withdrawn. The awakening of interest and good will at London has once more evidenced the strength of racial ties. Constitutional government began on the river Thames. Its victories will be gloriously celebrated by British men on Lake Michigan. The corner-stone for the British Pavilion was laid at Jackson Park, on Saturday, May 21, 1892, with special ceremonies conducted in the name of the Royal Commission.

The British people of Great Britain are making liberal arrangements for a comprehensive exhibit of the resources, manufactures and history of this gallant race, and the women, also, under the direction of Lady Aberdeen, who has visited us, are alive to the situation.

The Principality of Wales is thoroughly aroused to the importance of making a characteristic exhibit at the World's Fair. Their people have arranged to have their grand festival or eisted fodd, at Jackson Park, in 1893, and the tens of thousands of the former sons of this music-loving and God-fearing people now citizens in this country have subscribed large amounts for prizes to be awarded at this festival.

The sturdy Scots will be with us, and receive the generous hospitality of the thousands of leading fellow-clansmen who form a class so influential in our body politic.

From all of the British colonies will they come; and, as preliminary to their coming, the following appropriations have been made: By Great Britain, $300,000; Canada, $100,000; Honduras, $7,000; Cape Colony, $25,000; Trinidad $25,000; Jamaica, $20,000u; Ceylon, $40,000; and probably one million and a half dollars will not exceed the amovnt this nation and its dependencies, as governments, will expend in their preparation to comply with America's invitation to participate in this Fair.

The Royal Commissioner of Spain has already presented his credentials and has applied for the space his nation expects to require to display the exhibits of the land whose generous queen gave aid to speed the great discovery in his search for a continent.

Historic and classic Greece has appointed its commissioner and appropriated $60,000 for the suberb exhibit, to be displayed at Jackson Park.

The commissioner from Portugal has already arrived in Washington, and is soon to be with us to arrange for an exhibit.

The representatives of the governments of Belgium, Turkey, Switzerland and Egypt have visited the grounds and made their preliminary arrangements for exhibits.

Brazil, possessed of all the wealth of products incident to her perfect clime, has set aside $600,000 with which to display the exhibits and resources of that young and growing republic.

Costa Rica, with less than half a million of population, has appropriated $150,000, or in excess of 30 cents per capita, to comply with our invitation to be present and participate in the Fair. Little Ecuador has overtopped her lofty Chimborazo and Cotopaxi with her appropriation of $125,000, and Guatemala, with one million of inhabitants, has appropriated 20 cents per capita, or $200,000, to comply with the invitation of this country to participate.

Mexico, our next-door neighbor at the south—the nation that nutured the enterprise of Columbus has appointed its leading governmental officers to take charge of the several departments, and will eclipse any former effort in the exhibition of her wonderful resources; and, as a preliminary, has appropriated $50,000.

Japan, the Great Britain of Asia, that with every new day is making some new stride toward the western spirit of enterprise and civilization, almost staggers us with her appropriation of nearly $700,000, to conform with the invitation of the United States of America to participate in the great Fair.

I might go on, step by step, over the nations of the world. Suffice it to say, the civilized people of this earth have in a hearty and substantial manner accepted our invitation in good faith and have already appropriated over $5,000,000 to carry out, in an appropriate manner, their part in this great international exposition which we have inaugurated. Their acceptances of our invitation are on file in the Department of State, at Washington. Therefore I said to Congress, and I repeat: Cannot this government, the richest on the face of the earth, in the zenith of its power and prosperity, with an unprecedented balance sheet in its favor in its dealing with foreign nations; this government of whom a distinguished English statesman recently said that the "center of the power of the world was in the United States"; *can it not appropriate the value of a single cruiser* in the celebration of the arts of peace? I believe it can and will. *"Peace hath her victories no less renowned than war."*

Properly and economically administered, the people will cheerfully approve the appropriation. The constituents of our Congressmen—the states, territories and citizens—desire it; the nations of the earth—this government's constituency—desire it. And what is it all for? Civilization. Contemplate the glorious harvest of our Exposition; all creeds and tongues and peoples are invited and expected to be present at this universal banquet—a banquet of peace and brotherly love. Its natural effect will be the cementing of the bonds of national fraternity, the destruction of national jealousy and the collecting together as one of the great family of mankind to unitedly celebrate the opening of a hemisphere for the benefit of humanity, for the progress of civilization and the advancement of the Christian religion.

This was and is my plea. I beg the good will and aid of my fellow-Americans. The astonishing growth of the country, as reflected in the necessary triple enlargement of the World's Columbian Exposition, has placed the officers of the Fair in a position of responsibility not to be lightly assumed nor honorably abandoned.

Geo. R. Davis.

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PART VII.

THE MAIN BUILDINGS AND THEIR EXHIBITS.

CHAPTER I.

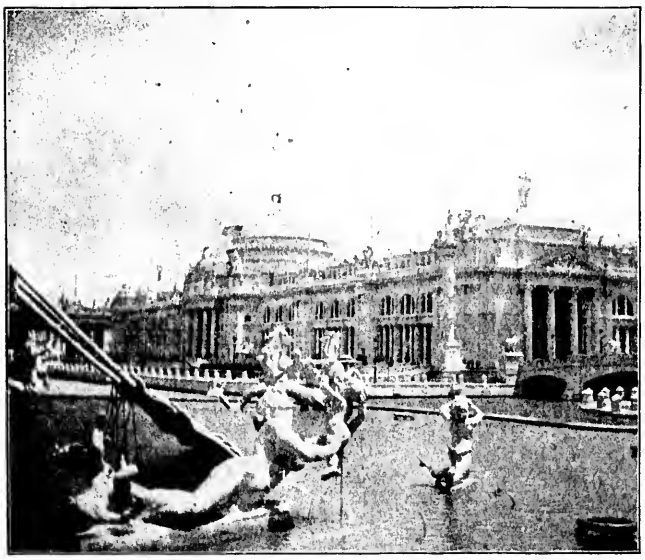
THE ADMINISTRATION BUILDING.

A Marvel of Exquisite Architectural Handiwork—Were it Stone Instead of Imitation it Would Have no Equal—Irresistible Color Scheme and Effect—Beautiful Blending of Pale Blue, Terra Cotta, Bright Yellow and Pale Cream—Unsurpassed Decorative Delineations—Matchless Fusion of Harmonious Tints—Impressive Ensemble of Rotunda, Colonnade, Mezzanine and Dome—Dedicatory Tablets to Gutenberg, Copernicus, James Watts and Morse—The Most Beautifully Lighted Structure in the World.

WHEN a person drops a ticket for which he has paid 50 cents into the box at any of the Exposition turnstiles and enters upon the spectacular grounds dedicated to the memory of the discoverer of America, he beholds what has taken ten thousand workmen more than two years and thirty-two millions of dollars to accomplish. He may ask himself whether all this expenditure was worth while—he may as well ask himself whether it was worth while for Columbus to have discovered America. If it is worth while to open wide the shores of a hospitable country where liberty and equality are assured to everyone, then it is proper to show to the whole world what four centuries of freedom and brotherhood have accomplished. America extends a cordial hand to the inhabitants of every clime, from the steppes of Siberia and the wastes of Patagonia to the shelving shores of Madagascar—and Anglo-Saxon and Hottentot are equally welcome; and that all may behold the progress of the arts and sciences, and of education, and study the marvelous resources of the world up to nearly the close of the nineteenth century, there has been provided for the reception of the people of all nations under the sun a magnificent park on the shores of an inland sea, which combines in its varied moods the majesty of an ocean and the limpid beauty of a sun-kissed pool dotted all over with palaces and temples, gardens bespangled with flowers and winding silvery lagoons. There are also government buildings of many nations, from the

stately structure of the German empire down to the cabin of the pioneer on the wooded island and the huts of the savages on the Midway Plaisance.

As is the case at all expositions, what are known as the main buildings and other main features command the earliest attention. This is particularly the case at this the greatest of all world's fairs, as there have been reared structures that had never been dreamed of ten years before; and although much has been written and pictured in magazine and newspaper of the grandeur and magnificence of the White City, the first sight of it never proves disappointing—its buildings are more imposing and its gardens and lagoons more beautiful than any imagination had pictured them.



STATUARY OPPOSITE ADMINISTRATION BUILDING.

"I had no conception of the extent, variety, or splendor of these buildings," is the exclamation, mental or verbal, of every visitor when he enters the park. The appearance of the magnificent group of main buildings around the lagoons is so different from anything in the United States, is so un-American, that it startle the imagination. Figures can give some idea of the size of these palaces, but the architecture in its infinite detail must truly be seen to be appreciated. When it is remembered that the area under roof is equal to that of Paris in 1889, Philadelphia in 1876, and Vienna in 1873 combined, that the cost of the main buildings is estimated roughly at over $6,700,000, some conception of the thought, the care, and the labor which they represent may be obtained. The Administration Building is considered the gem of the Exposition palaces. It is situated at the west of the great court in the southern part of the site, looking eastward, and at its rear are the transportation facilities. The great gilded dome of this lofty building is one of the most striking architectural features on the grounds.

There is no dome in this country to which this one can be compared. It is finer in every respect than any other on the Western Hemisphere. Richard M. Hunt is the architect. This imposing edifice cost $463,213. It covers an area of 260 feet square, and consists of four pavilions 84 feet square, one at each of the four angles of the square and connected by a grand central dome 120 feet in diameter and 220 feet in height, leaving at the center of each facade a recess 82 feet wide,

within which are the grand entrances to the building. The general design is in the style of the French Renaissance. The first story is in the Doric order. It is of heroic proportions, and is surrounded by a lofty balustrade. The great tiers of the angle of each pavilion are crowned with sculpture. The Ionic style of architecture is represented in the second story, with its lofty and spacious colonnade.

The four entrances, one on each side of the building, are 50 feet wide and 50 feet high, deeply recessed and covered by semi-circular arched vaults. In the rear of these arches are the entrance doors, and above them great screens of glass, giving light to the central rotunda. Across the face of these screens, at the level of the office floor, are galleries of communication between the different pavilions. The interior of this building exceeds in beauty and splendor even the exterior, imposing as that is. Between every two of the grand entrances and connecting the intervening pavilion with the rotunda is a hall 30 feet square, giving access to the offices, and provided with broad circular stairways and commodious elevators.

MACMONNIES AND ELECTRIC FOUNTAINS.

From the top of the cornice in the second story rises the interior dome 200 feet from the floor. In the center is an opening, 50 feet in diameter, transmitting a flow of light from the exterior dome overhead. The under side of the dome is enriched with deep panelings, richly molded, and these panelings are filled with sculpture in low relief and immense paintings representing the arts and sciences. The sculptor of the Administration Building is Karl Bitter, of New York. He executed the groups on the small domes and, among other subjects, groups representing "Commerce," "Industry," "Justice," "Religion," "War," "Peace," "Science," and "Arts." There are dedicatory tablets to Gutenberg, Copernicus, Watts and Morse.

The decoration of the dome was executed by William Leftwich Dodge, the youngest painter commissioned by the Exposition. The space covered by Mr. Dodge's painting is 315 feet in circumference, and 40 feet from apex to base. The subject of the painting is "The glorification of the Arts." On the throne,

which is seen in the portion of the dome opposite the main entrance to the building, Apollo is seated crowning the Arts as they approach from either side. There are ninety-five important figures in the composition, and those in the foreground are 25 feet in height.

The general color scheme is a pale cream. Tints of terra cotta, bright yellows and pale blues, however, heighten the decorative effects. The Corinthian columns to the lower portion of the frieze beneath the mezzanine story have been painted a warm yellow. This, however, is but the body color, as the columns are finished in imitation onyx. In the spandrels gilded shields crossed by laurel wreaths typify foreign countries that have come to exhibit their products at the Columbian Exposition.

In this building are the offices of the Director-General and his staff, and the headquarters of the newspapers from every quarter of the globe.

Emerging from the east entrance of the building, the visitor may stand on the spot where the dedication ceremonies took place, and where President Cleveland touched the button that started the machinery. Immediately in front of the building is a plaza 200 yards square, and in the distance lies the most enchanting architectural and landscape scene in the Exposition or in the world! Its central feature is an immense basin of water, probably 3,000 by 1,000 feet in size, fringed with balustrades, symbolical pillars, terraces, grass plats, and flower beds. In the foreground is MacMonnies' wonderful fountain representing Columbia seated on the ship of state, which is steered by Father Time, and on the prow of which stands the figure of Fame. This vessel is driven through the water by eight girls standing at the oars, four on either side.

Around the circumference of the basin are young men on horses, and mermaids and cherubs disport themselves in the waves in the wake of the boat. On either side of this fountain are two electric fountains. Rising from the water in the distance is French's colossal statue of the Republic, and beyond that, in dazzling white, Atwood's peristyle, between the columns of which are seen the deep-blue waters of the lake. At the space of a hundred yards from the water on every side stand in grandeur and beauty the great buildings of the exposition.

It is when in the gorgeous glow of monster search and thousands of incandescent lights that the Administration Building takes on its most spectacular and most bewitching robes. There never was such a matchless fusion of harmonious colors and tints; and colonnades, mezzanine and dome are resplendent amidst a jubilee of light. There never has been such a brilliantly and beautifully illuminated structure, while all of its handsome surroundings are liberally caparisoned with harmonious lines of lights. Were the Administration Building stone instead of imitation it would have no equal in the world.

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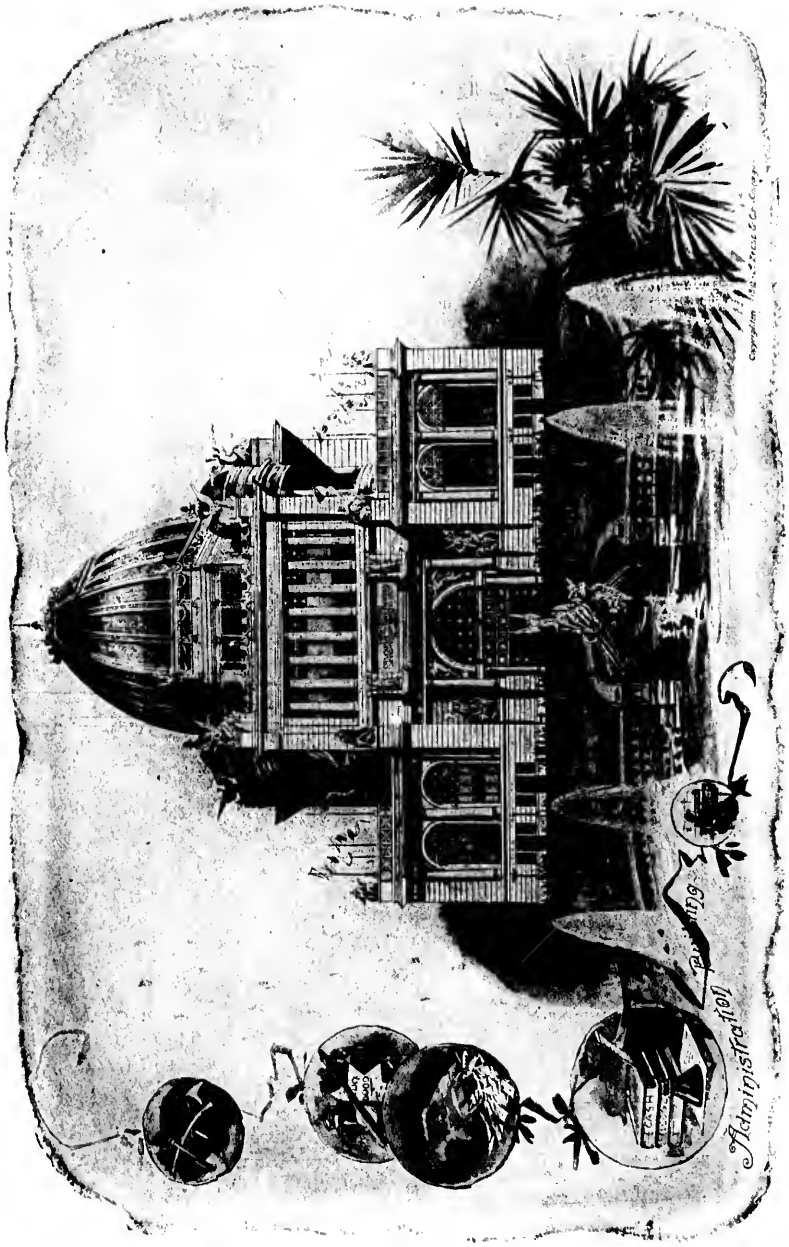

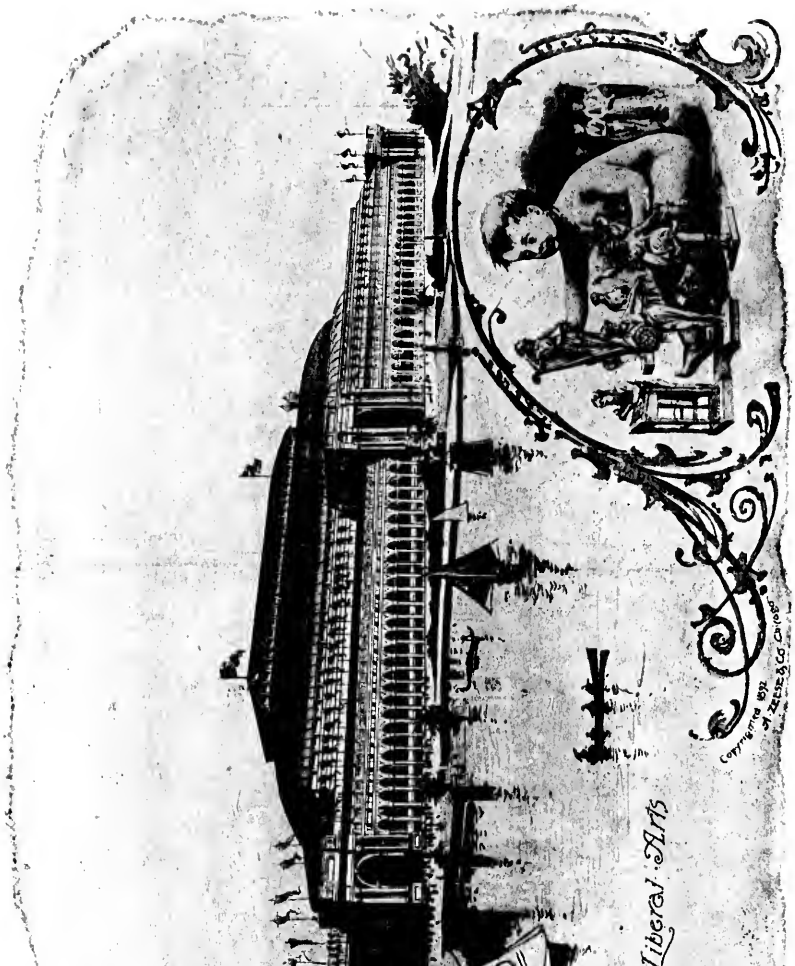

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CHAPTER II.

THE MAMMOTH MANUFACTURES BUILDING.

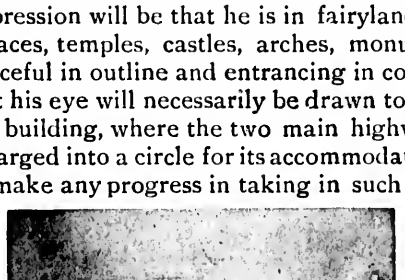
The Greatest Exposition Structure Ever Known—It Covers Nearly Forty Acres of Ground and Contains Forty-four Acres of Exhibits Valued at Fifty Millions of Dollars—Three Million Feet of Lumber and Five Carloads of Nails in the Main Floor—It is 1,687 Feet Long and 787 Feet Wide—Many of the Foreign Pavilions Built After Designs of Famous Palaces—Rare and Costly Wares, Fabrics, Watches, Jewelry, Musical and Mechanical Instruments and Professional Implements Amaze the Beholder on Every Hand—The Great Central Landmark an Alabaster Clock Tower, 135 Feet High, Erected by the American Clock Co.—A Chime of Nine Bells—When They Ring it Sounds Like the Music of Heaven Reverberating Through the Immense Space—The Pantheon-like Pavilion of the Meridian-Britannia Ware—Tiffany's Costly Structure—A Dazzling Aggregation of Gems—Splendid Display of Watches and Jewelry—Elegant and Spacious Booth of the Waltham Watch Company—Stem-Winders by the Ton—Palaces and Temples Filled with Laces, Rich Chinaware, Porcelain, Statuary, Silverware, Textile Fabrics, etc.—Silver Statue of Columbus at the Gorham Pavilion—Dolls that Talk and Walk—Petrified Wonders from Arizona—Dazzling Displays by Forty Foreign Countries—Reproduction of Hartfield House—Concentrated Splendor of the Siam Exhibit—Magnificent Displays by all the Leading European Countries—Sketch of James Allison, Chief of Department of Manufactures.

PERHAPS the object the most eagerly sought for by a majority of sightseers is the mammoth structure known as the Manufactures and Liberal Arts Building;—or, by a shorter term:—the Manufactures Building. This is because it is the largest in the group of most extraordinary buildings and also because of the extensive distribution of countries which make exhibits and the generally diversified and interesting nature of the exhibits—for within this immense structure are myriads of booths and pavilions where wares of every clime and country and of every description and value are to be seen. The Manufactures Building is the largest in the world and the largest under roof ever constructed. Its dimensions are 1687 by 787 feet and it has an exhibit area of 44 acres and covers 30½ acres. A central hall 380 feet wide runs its complete length and is spanned by single arches, without supports; 12,000,000 pounds of steel were used in these 22 trusses, each of which weighs 125 tons, and it required 600 flat cars to bring them from the iron works to Chicago. There were 17,000,000 feet of lumber used in construction and with this five car loads of nails were used; while there are over 2,000,000 pounds of iron in roof of nave. There are 11 acres of skylight and 40 car loads of glass in the roof. The building is 100 feet longer than the Brooklyn bridge and it is claimed that the iron and steel in the roof alone would construct

two such suspension bridges. It will seat 300,000 people, and there would be room for the full standing army of Russia under its roof. It is three times as large as St. Peter's cathedral, and the largest church in Chicago could be placed within the vestibule of that great church at Rome.

The building is rectangular in form, and is surrounded by a spacious colonnade, which affords a splendid promenade on a warm day, getting the lake breeze and water view on all sides. It is in the Corinthian style of architecture, its classic outlines and stupendous length being broken by the four entrances 40 feet wide and 80 feet high and the eight domes. The exterior is covered with "staff" and in its columns, arches, sculptured bas-reliefs and panels, presents the appearance of a magnificent marble palace. The walls are 66 feet high, the four central pavilions 122, the corner pavilions 97 and the greatest height of roof 437.6 feet. The plans of this architectural wonder were drawn by George B. Post, of New York; their execution cost the Exposition $1,800,000.

When one enters the Manufactures Building, say by the south entrance, his impression will be that he is in fairyland, or at least that he is visiting a city of palaces, temples, castles, arches, monuments, and hanging gardens. All that is graceful in outline and entrancing in color will salute his senses at the same time. But his eye will necessarily be drawn toward a beautiful structure in the center of the building, where the two main highways intersect, and where they have been enlarged into a circle for its accommodation. The best thing he can do, if he expects to make any progress in taking in such a wilderness of attractions, is to make for this center and then branch out from it at his leisure. The great central landmark, looking like the spire of a cathedral in alabaster, is the clock tower, 135 feet high, of the American Self-Winding Clock Company. It is arched on all four sides, of course, or it would block up the thoroughfare. In addition to a clock-dial on each side, it has a chime of nine bells. The largest, on which the hour is struck, weighs 3,700 pounds, and the whole chime 7,000 pounds. When they ring it sounds like the music of heaven reverberating through the immense spaces of the building. Clocks are scarce in Jackson Park, but visitors to the Manufactures Building, no matter in what remote corner of it they may be hid, are reminded in notes of the sweetest music of the flight not only of the happy hours, but of the happy halves and quarters as well.



CHIEF ALLISON.

The space on the ground floor of the building is alloted mainly on the basis of nationality, and apparently on the principle of placing the greatest nations

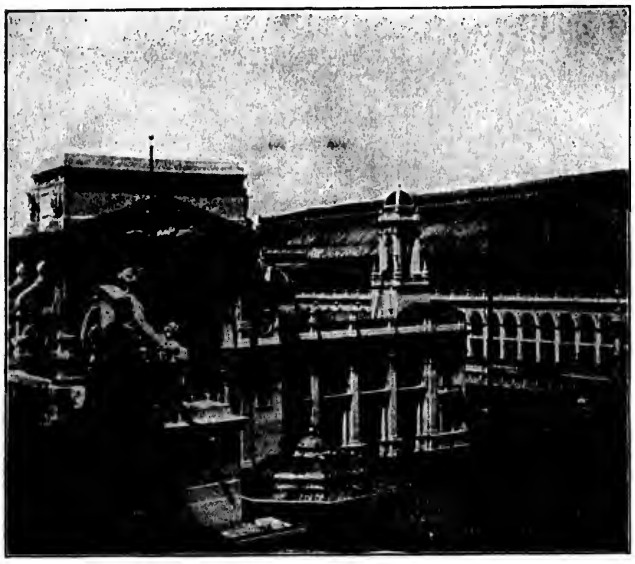
nearest to this striking central feature. Standing at this point, where the building is exactly quartered, one will observe that he is surrounded by the great powers of the earth. In the northeast quarter is the United States, in the northwest quarter Germany, in the southeast quarter France, and in the southwest quarter Great Britain. If he will climb the clock-tower and look again, he will see that the United States takes the entire northeast corner of the dome-covered portion of the building. In the northwest corner, however, he will see, over the head of Germany, the exhibits of Austria and then Japan. In like manner, looking to the southeast, he will see, away beyond France, the exhibits of Belgium, Russia and Norway, with China away off to the east. Then, looking to the southwest, he will see, adjoining Great Britain on the south, Canada, and beyond that Denmark, Brazil, Italy and Spain, while off to the west are Jamaica, India, and New South Wales, and to the southwest Switzerland, Mexico, and Persia. The smaller nations he may locate gradually.

Looking again to the northeast, the visitor will be struck with the fact that the United States exhibits, unlike those of other countries, are not nationalized by any kind of general inclosure. He will also be struck with the fact that it is not exactly on the same scale of expensiveness or grandeur as the neighboring national exhibits. In place of a national pavilion it has at the angle nearest the clock tower the booth of Tiffany, however, which entirely redeems it. This triple-arched entrance, with a saffron-colored doric column 100 feet high, surmounted with a globe and golden eagle, is certainly beautiful. To the north of it, and in striking contrast with it, is the pantheon-like booth of the Meriden Britanniaware Company, built of rosewood with curved plate-glass windows. North of that again is the elegant and spacious mahogany booth of the Waltham Watch Company. The rest of the space is cut up into comparatively small portions, but which contain many interesting and creditable exhibits, although they may not make so great an impression amid such a wilderness of magnificence.

The articles classed under manufactures and displayed are so numerous as to bewilder the mind. They are divided into thirty-five groups, each group divided into ten or more classes, and each class into about twenty or more smaller departments; and even these smaller departments are so general as to convey but little idea of the almost infinite diversity of articles displayed. It may assist the imagination, however, to mention as included in the groups chemical and pharmaceutical supplies, paints, colors, dyes, varnishes, paper, stationery, upholstery, artistic decorations, ceramics, mosaics, stone, monuments, musical instruments, china, porcelain, glassware, furniture, stoves, bronzes, paintings, statuary, watches and jewelry, clothing, silks, satins, cassimeres, serges, velvets, laces, draperies, linens, cottons, woolens, firearms, dolls, iron, copper, brass, nickel and tin ware, and many tens of thousands of things that need not be enumerated, but which include nearly all kinds of machines and implements and other articles of handiwork not used in mining, agriculture and transportation. More than thirty foreign governments are represented, among which are Algeria, Argentine Republic, Austria, Belgium, Bolivia, Brazil, British Guiana, British Honduras, Cape Colony, Canada, Ceylon, Chili,

China, Colombia, Costa Rica, Cuba, Curacao, Denmark, Dutch Guiana, Dutch West Indies, Eucador, France, French Guiana, Germany, Great Britain, Guatemala, Hawaiian Islands, Hayti, Honduras, Italy, Japan, Jamaica, Korea, Madagascar, Mexico, New South Wales, Netherlands, Nicaragua, Norway, Orange Free State, Paraguay, Persia, Peru, Porto Rico, Queensland, Russia, Salvador, San Domingo, Siam, Spain, Sweden, Switzerland, Trinidad, Turkey, Uruguay, Venezuela, Zanzibar.

Many of the foreign pavilions are built after the designs of famous palaces. Germany's pavilion is a wonderful piece of work, the French section is magnificent, and the English hardly behind its neighbors. The value of the exhibits in the Manufactures Building is more than $50,000,000 and they include rare and costly articles of every kind that are the fruits of skilled labor as well as many more that are in constant demand and use. Far away India shows rich embroideries, brocades and silk textiles; quaint carvings in sandal and teak woods, ivory and bone; gold, silver and amber jewelry; art pottery and other curious workmanship Japan's bamboo and lacquer ware; porcelain, faience, cloissonne, and art metal wares; delicate ivories, gumma, tapestries, and so forth, are much admired. This country exceeds all others in number of exhibitors, there being 2089 in all. Norway, Denmark and Sweden display about the same line of goods, jewelry, carvings, embroideries, furniture, etc. Siam has 63 exhibits. Skins, inlaid pearl work, enameled articles, rattan nd bamboo woods, needle work, preserves, candied fruits, etc. The renowned Swiss watches and carvings are shown in this section. Chronometers for old and young, rich and poor, useful and ornamental, turn their shining faces up from row upon row of cases. The Italian section displays a world of marbles, mosaics and bronzes; Venetian glassware, laces, artistic furniture, Roman silks, Neapolitan corals and cameos; filigree work, tapestries, lamps and other exquisite goods cause much admiration and covetousness on the part of the visitor. Great Brit-



WEST SIDE OF MANUFACTURES BUILDING.

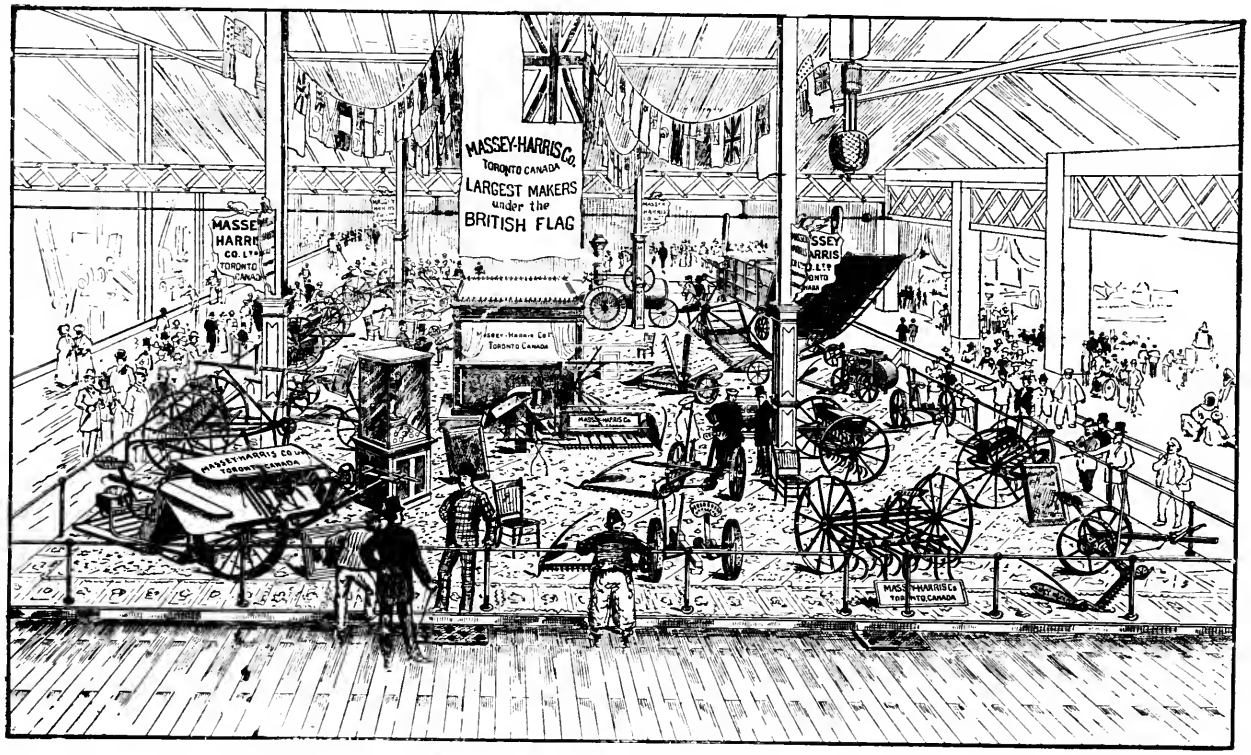
ain occupies a large space in the center of the huge building and displays a great variety of manufactures, particularly Irish linens and laces, Scotch worsteds and woolens; china, glassware and pottery decorated in every imaginable style; perfumeries, silks and all the ordinary articles such as yarns, cutlery, sporting guns, combs and brushes, clothing, and many, many more.

Belgium has brought over her Brussels handkerchiefs and point veils and Chantilly flounces and Valenciennes edges, and fans and collars and parasol covers in every known lace and for every use, bronze vases and ceramic tiles, costumes, cathedral glass and many other beautiful things. As all the world knows, Belgium prides herself on her laces, and there are some on exhibition that are marvelously delicate and beautiful. There are Mechlin round point, Valenciennes, black Belgian thread, dentelle, Louis XV., Venetian point, point de Bruges, point applique, duchesse and as many other kinds of lace as ever were known to the modern world, made up in collars, handkerchiefs, trimmings, covers, fans and even a bride's veil. It is a sufficiently explicit description of the last to say that its price at home is 75,000 francs, or $15,000 dollars. Next in importance is its exhibit of porcelain, of which there are numerous beautiful specimens. Much attention is given to the display of native marbles. In one exhibit there is shown an entrance to a hall, a staircase, mantel, dado, paneling, semi-Corinthian pillars, an elaborate inlaid floor and beautiful chimney pieces. The white marbles are good rivals of the celebrated Parian marbles, and the blocks, delicately carved and remarkably pure in color, are rare specimens in this part of the world. Austria has over two hundred beautiful displays by her merchants. France keeps up her reputation as producing the most exquisite silks and velvets, and rivals if not excels other countries in her china, laces, artificial flowers, costumes, millinery, bronzes, and Parisian novelties. The United States, producing and manufacturing everything, exhibits everything. Whatever the foreigner can design, the American artisan can improve, so through the full line of exhibits, this country reflects great credit in what is shown in the Manufactures and Liberal Arts Building alone.

The German exhibit, including the pavilion and the great lordly-looking iron fence, is grand and wonderful. Immense bronzes, tile painting, antique silver, carvings, fine art wares, artistic interior decorations, and thousands of inviting objects too numerous to mention are seen daily by tens of thousands of people.

The following is a list of the principal articles contributed by the emperor of Germany:

Golden goblet, enameled, with jewels; dedicated to his majesty Emperor William II. Among the articles dedicated to his majesty Emperor William I. are a medal of the Royal Academy of Arts; congratulatory address of the city of Berlin on the occasion of his majesty's return from the war of 1866; addresses of the province of Silesia, city of Munich, on the occasion of their majesties' golden wedding of 1879; congratulatory addresses of the city of Cologne, cities of Silesia, women of Cologne, subjects of the empire on the occasion of his majesty's ninetieth birthday.



GRAND EXHIBIT OF MASSEY-HARRIS CO., LTD., IN THE AGRICULTURAL PALACE,

Articles dedicated to his majesty Emperor Frederic III., congratulatory addresses of the province of Saxony, city of Nuremberg, and city of Berlin on the occasion of their majesties' silver wedding in 1883.

Silver bowl presented by the nobility of Schleswig-Holsten to his royal highness Prince Henry of Prussia on the occasion of his wedding.

MERIDEN BRITTANIA PAVILION.

Gifts of honor and addresses to his highness Prince Bismarck, silver table service, shield of honor, silver; bowl dedicated by German students, copper tankard, patents of honorary citizenship to the cities of Berlin, Bremen, Cologne, Dresden, Druisberg, Hamburg, Hanau and Lauenberg.

Gifts of honor and addresses to Gen. Count von Moltke, field marshal staff, patents of honorary citizenship of the cities of Hamburg, Munich and Mersburg

Shrine of addresses, ebony and silver, shield of honor, votive tablet.

Prizes of honor awarded by his majesty the emperor of Germany for army, hunting, races, and regattas, silver ships and goblets, bust of his majesty Emperor William II., silver; silver bowl embossed; silver clock, silver cup with socle, enameled and gilded; silver dollar platter, silver dollar cup.

Silver table service in the shape of a sleigh, enameled; silver goblet, shield of honor, casette, ebony with silver; enameled silver table service, shells and alabaster; bronze group, "The Daily Press;" glass goblet, polished; stone vase, set in bronze; portraits of their imperial majesties the emperor and empress of Germany, bronze, with frame of gold bronze.

Galvanoplastic imitations of old German goldsmith work, mostly from the silverware property of the city of Luneburg at present in the Museum of Industrial Art Berlin; cups, cans, and basins of the fifteenth and sixteenth centuries.

In the room of Gabriel Seidl are exhibited red marble vase, rich bronze mountings; reliquiarium, ebony, with lapis lazuli, enameled and with silver work; figure of St. George, gilded bronze; table service; casette, ebony with silver; silver globe; stag clock; scenting bottle; cup in the shape of a thistle, silver; wine pitcher; aquarium, glass and silver; crucifix, silver and crystal.

Property of the emperor of Germany, exhibited as a part of the exhibition of Baden, wrought iron screen for stove, enameled, Schwarzwald clock.

Property of his royal highness the hereditary Grand Duke Frederic, of Baden, grand silver table service, small table service, chandelier, and case for reception of documents, gilded silver dish, silver cup, clock, fans, casette, carved in wood, and other personal ornaments, silver plate, decorations, and an infinite variety of other articles, worth millions of dollars.

Away out at the extreme north end of the German section, in a little nook all by itself, is an exhibit which possesses a wealth of attraction to all who chance upon it. There is not a minute of the day but what this charmed corner contains scores of delighted little ones who literally feast their eyes upon the pretty things displayed. The display is that made by the allied doll industries of Sonneberg and Ohrdruf, in Thuringen, Germany.

Never before were so many different types of dolls displayed. There are white dolls and black dolls, cute little pickaninnies and oblique eyed Jap boys and little maidens; tiny dwarf dollies and big dollies; diminutive Uncle Sams in frock coat and fluffy beaver, and a host of other things. If the young tots are fascinated by the wonderful exhibit their elders are none the less interested. It is a unique exhibit. It is more than unique; there is originality and art, both in the conception of the rosy-cheeked little misses that look down at you with eyes of liquid blue, and their execution.

From time immemorial a little town in Thuringen, almost on the border of the Black Forest has been manufacturing toys. This town is Sonneberg. The industry has been carried down from father to son for generations. Everybody who can work takes a part in the production of these trifles which seem to bring heaven nearer the heart of the average toddler. Grandfathers work beside little girls

barely strong enough to stand up. Each does a part and does it well. The result has been to bring the perfection of toy-making almost to its highest notch.

There is a suggestion of the "Crystal Slipper" coach, and one expects to see at almost any moment the powdered wig and sweet face, of Cinderella peep out of the coach doors. But instead of that there are the most quizzical looking punchinellos any one could possibly imagine; gaily bedecked and embroidered young lackeys, footmen, and a vast retinue of attendants. Fat and rubicund little German misses smile down at you or shake their dainty fingers. A shaggy St. Bernard tramps haughtily and independent alongside the coach. It all looks like a merry outing where clown and child have gone out to amuse and be amused.

Along the three sides of the room thousands of other dollies smile quizzingly as you watch them. They are either on shelves or in dainty cases. The shelves have been built low purposely so that the youngsters who come into the Sonneberg display may peep all by themselves into all these glories. Ladies of rank may be seen here with long-trained robes and fluffy blonde hair. Little white rabbits there are with eyes like a sunset. If the keeper is in good humor he will take the bunny out, and after winding up some invisible spring, bunny will hop out and trot lifelike on the floor. There is a big-eyed heifer who will bellow just like the genuine dairy article, and a little lamb that gambols and bleats ever so cutely.

These things are for the little boys. Also a regular farm, with tiny plow and harrow, a tiny wagon drawn by pretty horses, and tools of all sorts—carpenter, mason, architect, surveyor, etc.

The little girls can have much else to choose from in case the dollies don't meet exactly their desires. A dainty china tea set is there complete, also a minature kitchen, where Bessie or Maude, or whoever the little girl may be who gets the set, can treat her friends to a repast as generous and bountiful as any lady of the "400" can do. Besides all this, she can have a parlor set with the prettiest upholstered baby chairs imaginable.

Of course, every one who visits the Manufactures Building has seen the Tiffany pavilion, with its tall, eagle-tipped tower. You can see almost any example of the gold and silversmith's skill at Tiffany's, from a six-shooter with richly graven silver handles to a toilet table worth $9,000. This toilet table, by the way, is a thing to be admired. It is exceedingly dainty and fragile and is made of the precious amaranth wood, brought from South America. Very little of this red grained wood is visible, though, for the table is pretty well encrusted with sterling silver. This little trifle has been sold to a European patron of the Tiffanys. Near by it is a remarkable piece of work, being an incense burner in the shape of a duck which is being strangled by a rattlesnake. The snake is of silver, its scales are Queensland opals, and its head and rattles are American pearls. There is a bit of a furnace in the duck's bill, where the incense sticks are to be put, and the snake's head has a receptacle for the storage of incense sticks. There is a match-box, too, concealed within the serpent's interior economy.

Some of the finest ware shown is in a tea set of seven pieces with salver, the "flower set," for each piece of it being decorated with a different variety of Ameri-

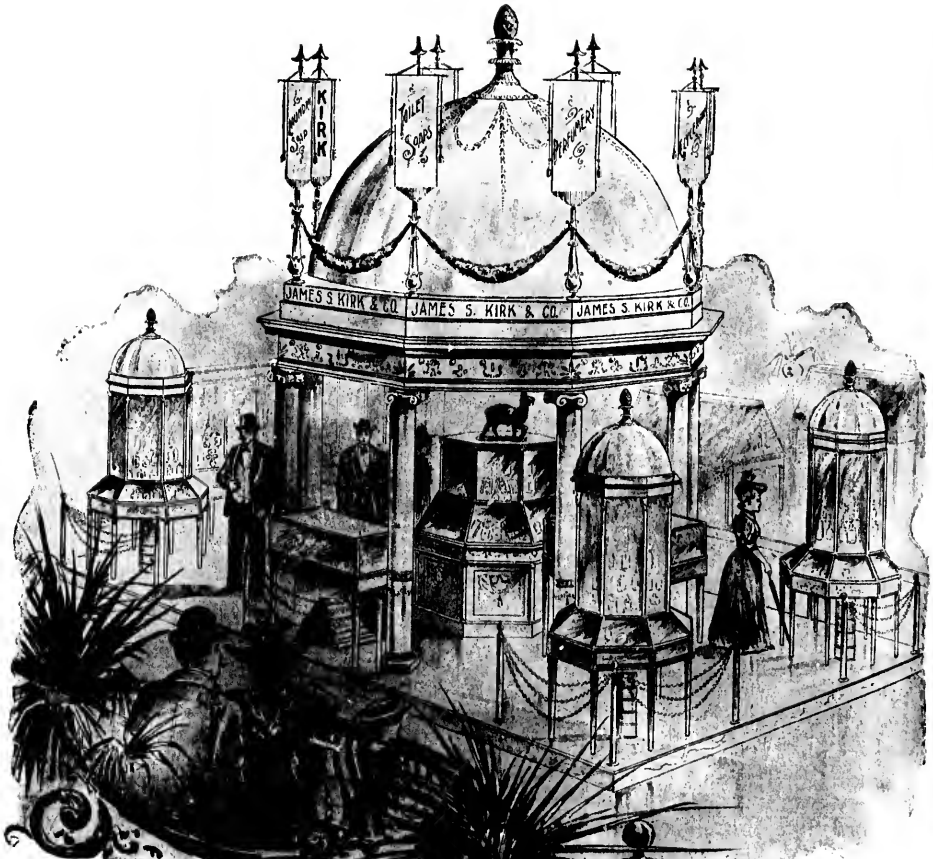


EXHIBIT OF JAMES S. KIRK & CO.

cut flowers. This set is worth only $22,000. There is another set, a silver table service, containing 570 pieces, all elaborately decorated. An Indian chrysanthemum dinner set consists of about 600 pieces. Of vases, tankards, loving cups, trophy cups, clocks, spoons, bonbon boxes, thermometers, coffee pots and the like there is a dazzling variety.

But it is in diamonds and other precious stones that this display is riotous. The central gem of all of course is the gray canary diamond, set at the apex of a velvet pyramid and revolving slowly on a gold pivot, so that many hued fires are always flashing from its yellow depths. Scattered about it are 10,000 other diamonds and nearly $400,000 worth of pearls. These pearls are in three necklaces, one being the finest strand of pearls ever brought to America. It is worth $200,000. The other two are worth $100,000 and $85,000 respectively. There is a woven arabesque girdle of gold with twenty large canary diamonds in it—only $25,000. There is one diamond necklace of forty-two stones, aggregating 1,000 carats, and still another with pendants, it holds 550 rose diamonds. Another jewlery set consists of tiara, necklace and pendant. It contains 147 splendid aquamarines and 1,848 diamonds. A companion set is of pink topaz and diamonds. Of the lesser precious and semi-precious stones there is a bewildering display. An especially interesting feature of the pavilion is a case of pearl oysters and unpolished pearls, wherefrom most visitors are able to learn something. The Tiffany Glass and Decorating Company has not so costly an exhibit, but it is quite as artistic and beautiful. Louis Tiffany has his section of the pavilion cut into three rooms. The largest one is fitted as a chapel with a superb altar set under triple mosaic arches. The floor of the sanctuary, too, is of the most intricately wrought glass mosaic, as are the chancel steps and the front of the altar itself. The heavy columns, too, are of iridescent mosaic. The lectern is of the same exquisite work, as is also the font, which has a finely wrought cover of glass. The central window of the chapel is "The Descent from the Cross," designed by Louis Tiffany. On one side is shown Christ giving his blessing to St. John; on the other a reproduction of one of Bocatelli's windows. There is another smaller window, "The Good Shepherd," which is really the finest bit of color in the chapel. There are exhibited here some surpassingly fine vestments, an altar cross spangled with jewels, and some fine candle sticks of Connemara marble. The entire effect of this little chapel, which is in the byzantine style, is exceedingly rich.

Conspicuous among those not already named are the solid silver statue of Columbus, exhibited by Gorham & Co., and cast at Providence, R. I.; petrified wood in blocks and mantels and tables, from the Petrified Forest of Arizona; rugs and carpets from Turkey, Persia, Bulgaria, Arabia, Pennsylvania and Massachusetts; pianos and organs from as many makers as there are states and territories in the Union; colognes and other perfumeries and fancy and other soaps from a hundred makers; dolls that talk and walk and cry from Paris and Vienna; toys from Nuremburg, China and Japan; stoves and stoveware from Providence, R. I.; queenly dresses from La Bon Marche and from Felix and Worth, Paris; sewing machines from all the great makers in America.

The statue of Columbus is six feet high, standing on a pedestal one foot high, the whole of solid silver and containing 30,000 ounces of the metal, 925-1,000 fine. It was modeled in Paris by the sculptor, and the model was shipped to the Gorham foundry in Providence, where it was cast at a cost of $50,000. Its principal value, however, lies in the artistic strength of the figure. The great navigator is pictured as a man of determination of rough vigor. The pose shows him standing, with anxious brow, pointing toward the horizon, as if to question the path that lay before him. Associated with the figure as suggestions of his calling are the navigator's instruments. The composition is of the simplest, and the figure has been left with all the lines of the first casting untouched—a tribute to the mechanical perfection that brought the model forth with lines that needed no finishing.

On either side of the statue and beyond, covering considerable area, are the cases of wares that represent the best skill of American designers and artisans. There are great trophies, magnificent silver services, bronzes, inlaid and repousse work and new designs innumerable in the pieces that go to beautify the homes of the wealthy.

Conspicuous among the trophies is the Century vase which won a gold medal at the Centennial and was one of the first great pieces of its kind to demonstrate the advance of American workmanship in the metal-working arts. On either side of the vase are sixty-four pieces, composing what is called the "rose" dinner set, valued at $25,000, and said to be the finest service ever made in the United States. The rose is used as a central motive of decoration and the design is wrought out with marvelous perfection of detail.

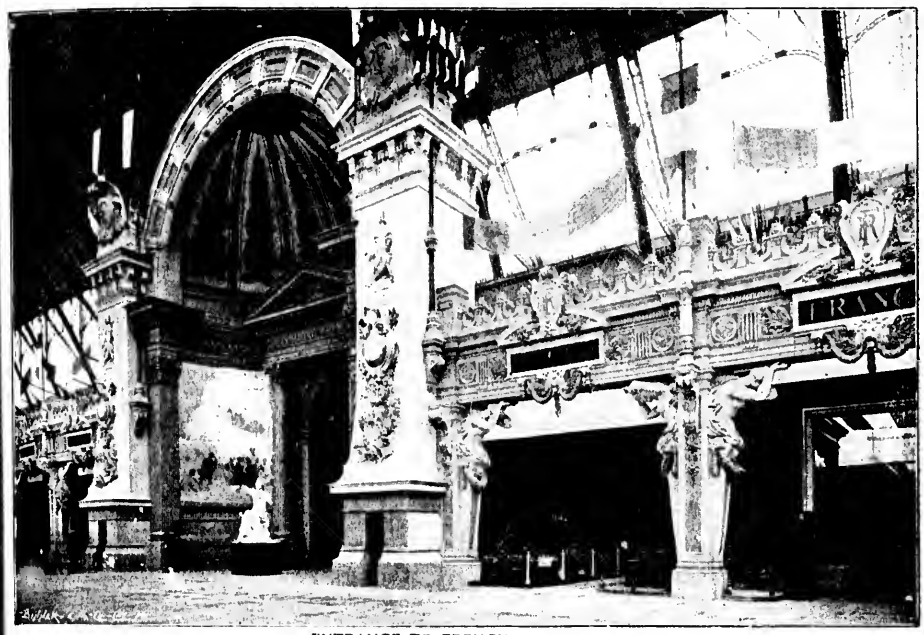
Down the central aisle of the pavilion are groups of ware that attract crowds continually. In one case are two plates worth $950 and $1,150 each, and a pitcher that cost $1,150. A quaint design in the group is the "creation" cup—a small affair with symbolic decoration typifying the epochs of creation since the period of Genesis.

A novelty in the same exhibit is a collection of translucent ware which is in effect a silver filigree design filled out in the interstices with translucent glass of varied hues.

Next and perhaps the finest of the purely domestic production is the group of Rockwood designs with a superficial covering of silver deposited by a process but little used until recently in this country. Some of the vases in this pattern are almost monumental in size, and all of them subjects of favorable comparison with the best work in any of the foreign sections.

Along the south frontage of the pavilion are sets of a ware that is an innovation on the conventional without transgressing the most rigid canons of art decoration. These are made in combinations of glass, gold and silver, but instead of molding the metal about the glass design, the process is reversed and the glass blown into the silver after the figure is complete. Following an original and recent fashion, the glass is ruby-tinted and the combination of color is remarkable effective, either in strong sunlight or in the clear glow of electricity.

Hippolite Taine, the great French philosopher, asserts in his work on the Philosophy of Art, that the characteristics of a nation are always seen in its art products. In no exhibit at the Exposition is this theory more plainly shown than in the beauty of the exterior of the French pavilion which is a triumph of Æsthetic Art, with its beautiful entablatures upheld by Titanic figures bending gracefully beneath their self-imposed burden, or gazes at the great dome above shedding a



ENTRANCE TO FRENCH PAVILION.

golden radiance upon the sitting Statue of the Republic beneath—that symbol of fraternity between the two greatest Republics of the world—the mind sense drinks in the full beauty of its perfection. In comparison how cold and gloomy seems the Russian pavilion beyond, with its round arches, suggestive of prostration and prayer. And yet it screens so many rare and costly things that one can spend many valuable hours in this exhibit and depart thence, feeling that the soul in its search for the exquisitely beautiful has found satiety.

Italy makes a dazzling exhibit of marbles, bronzes, mosaics, paintings, majolica, laces, jewelry, bric-a-brac and tapestries. About the walls and in cases are displayed specimens of every variety of Venetian lace and needlework. There are cobwebby fabrics ranging in price from two cents to $400 a yard. There are great pieces of rose point as soft and delicate as a spider's web, scarfs and veils of old Venetian point fit for the bridal of a Princess, and fans and lace handkerchiefs which would drive a woman to frenzy. A novelty in lace work is the polygram pattern, done in many colors with the most delicate shadings and used most exclusively for screens and banners. One great case is entirely filled with lace bedspreads. Some of the more expensive are valued at $1,000 each, and are done in rococo point laced with blue and gold ribbons and embroidered by hand in gold and silver. A single firm now employs a thousand men in this line of work alone. A remarkable thing about the lacemakers of Venice is that the women who do even the finest and most difficult pieces are content to work for 15 or 16 cents a day, and the retail price made by the lacemaker is based on the estimate of 20 cents for each day's work on the piece. In this way it is easy to tell just how long it has taken the patient lacemakers to complete a given piece. Thus if a lace scarf be sold for $25 by a reputable dealer in Venice it may be estimated that 125 days' labor has been given to its construction.

The contents of this lace-house in the Italian section are valued at more than $40,000, and from the splendid veil patterned exactly after that worn by Maria Louisa, Empress of the French, to the most modern and inexpensive bit of edging it interests and excites the attention of every woman who come within sight.

That which will attract the most attention in the Italian section is its statuary. Italy's entire space is not so large as the commissioners had hoped it might be and it has been found necessary to put a great deal into the rather small section. But the work of arrangement has been artistically accomplished, so that all who visit it may see to good advantage the things of beauty made in the sunny Italy of modern times.

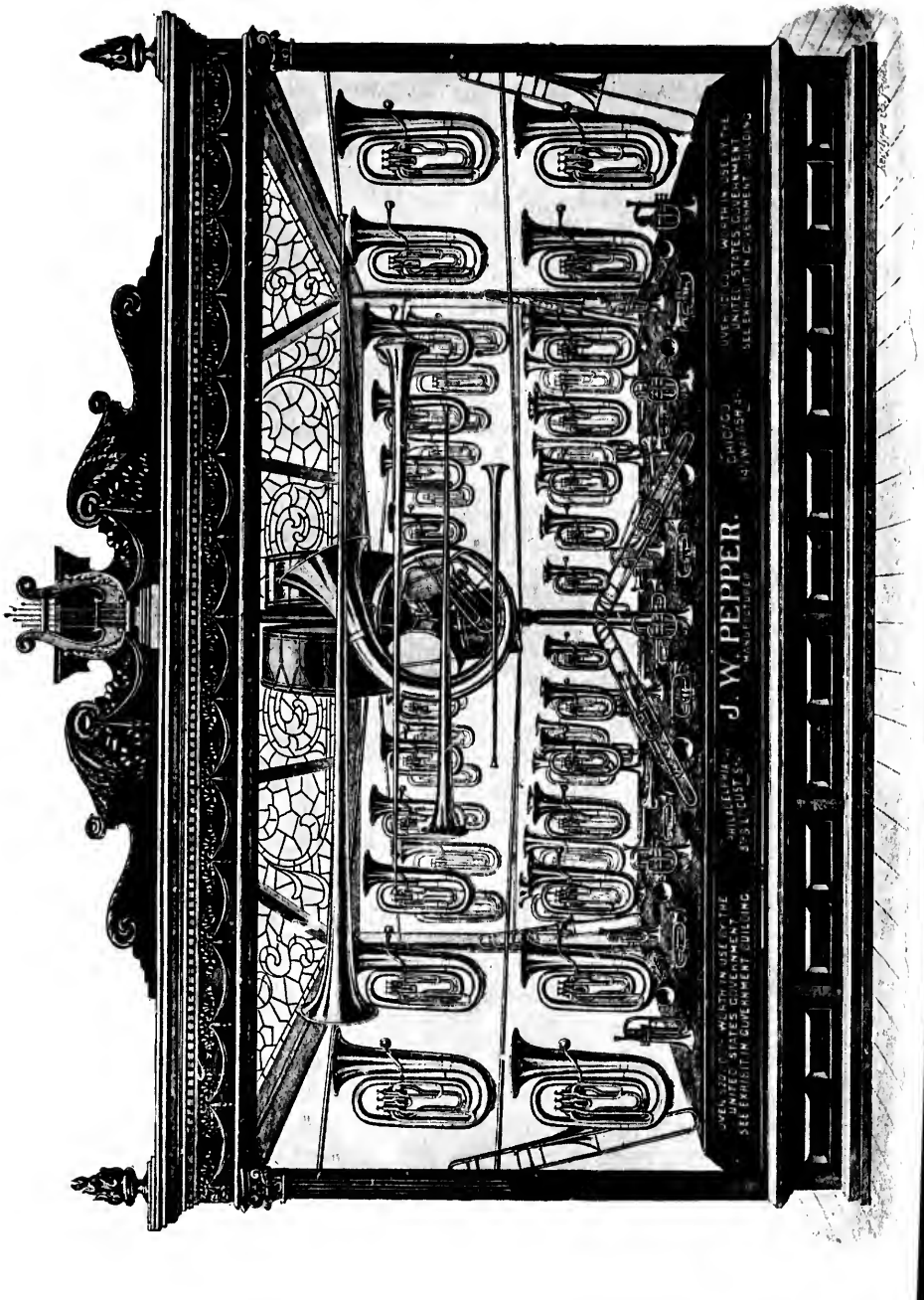
Passing from the statuary around the section, the visitor may indulge in the luxury of other things not less beautiful or wonderful. On one side are artistic specimens of wrought-iron work made into all sorts of happy combinations and pretty designs. In one portion of the section is a bedchamber furnished with antique furniture and rugs and portieres of polished and embroidered leather. In another corner is a room fitted with a set of furniture made of ebony and inlaid with ivory. Two tables in this section attract special attention. They are of antique pattern and the tops are inlaid with ivory in designs depicting battle scenes. At another place the visitor is transported within the walls of Pompeii, whose treasures none have before beheld save in the immortal work which describes her last days. But here are the real things, or, rather, reproductions of them, which decorated the sideboards and mantels of the homes in that famous city, the very memory of whose existence was effaced for centuries. Gold and silver vases, jewelry, bracelets, ornaments of rare coral and jewels, all reproductions of articles found

in the subterranean ruins, are seen in endless profusion. Some even are genuine and taken from the museum and school of Alexander Castelani in Rome.

Besides, there are tapestries of modern design and others which, made long ago, have stood the test of three and even four centuries of decay, yet seemed to have come fresh from the hands of the makers. Filigree work in silver and all sorts of toilet articles fashioned from tortoise shell are seen in abundance. All these things, with chandeliers, laces, mosaics, mirrors, hand-painted glass ornaments, vases almost priceless in value, with hundreds and even thousands of other articles fashioned with the characteristic art of Italy, keep a constant stream of visitors pouring into the section long after it daily becomes necessary to turn the current into the great coronas to light the scene.

It would require more than one long chapter to invite brief attention to a tenth of the beautiful objects in the French exhibit. The display of household decorations, images, fine arts, laces, jewelry, silk dresses and cloaks is unsurpassed. At one point these garments are displayed on wax figures, with that delicately artistic arrangement so prominent in all the French exhibits. The material shown is of the most expensive and the styles the newest. At another point there is a rich and rare display of furs. The floor of the space is carpeted with 135 river otter skins. A single mantle is made of eighty-five Russian sable skins. On the rear wall hangs the skins of a polar bear, a lion, a tiger and leopard. There is a profusion of otter skins, some of them made up into garmets. The lining and trimming of one cloak is of blue fox. The windows in front of these exhibits, which are the first approaching from the south, are crowded with men and women each day.

Nothing in the Austrian exhibit will attract greater attention than the display of armor, divided between the genuinely antique and imitations from existing specimens, offered by a Vienna firm. Faded from its pristine brightness in the lapse of centuries, the armor that protected Ludwig II. of Hungary is placed midway between that of Heinrich von Ranzow, with its queer spiked plates of steel on the shoulders, and that of an unknown who left to the world in his visor the form of his countenance. With the armor is a rosebush of wrought steel, the petals of every blossom crisped and curled as in the living flower, the work of cunning hands. To the last detail the work is a faithful copy, and the result is a marvel of delicate workmanship. Austria excels in her Bohemian ware, which is admired by vast crowds daily. An exact reproduction of the famous dining-room at Hatfield house, the home of Lord Salisbury, may be seen in the British section. Of all the famous houses in England Hatfield house is considered the most famous, as it is acknowledged to be the best specimen of Elizabethan architecture extant. The dining-room is the most attractive room in the house, for it tells in its carvings the history of the Cecils from the tenth century. Beneath its richly paneled ceiling Henry VIII. and Queen Elizabeth took their daily meals, for both these rulers at one time made Hatfield house their residence. In the reproduction one side of the dining-room is left open. On the other side is the old iron fireplace with the date 1657 on it and the huge fire-irons and dogs. Above this is the huge tapestry



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which represent the present owner's ancestors at the crusade; on either side is a full stand of mail which is also figured to protect some heroic Cecil during that holy war, and above all is the full coat-of-arms of the house.

At the upper end of the dining-room is the minstrel gallery, with a carved lattice-work balcony surmounted by six lions rampant, each holding a shield with the six primal quarterings of the family, and at the other end is rich carving of the old oak of which the entire interior is made, the great folding doors, on either side of which hang life-size paintings of Queen Elizabeth and Mary Queen of Scots. Directly under the minstrel gallery are six winged busts in carved oak which form truss coves, and these busts are likenesses of the six branches of the house whose coat-of-arms is held by the lions directly over them, and above all is the coat-of-arms of the Cecils. Around the ceiling are more truss coves made by lions, each holding the coat-of-arms emblazoned shield, showing the connections of the house to other families by their quarterings, and the softly faded heraldic colorings are faithfully shown.

The following is an analyzed list of the number of British exhibiters in the Manufactures Building: Chemical and pharmaceutical, 30; paints and dyes, 9; typewriters and stationery, 11; upholstery and decoration, 16; ceramics and mosaics, 12; marble, stone, and metal articles, 2; art metal work, 1; glass, 2; stained glass, 4; carving, 1; gold and silver ware, 4; jewelry 1; horology, 1; silk, 7; vegetable and mineral fibers, 1; woven cotton, yarn, and linen, 19; felted goods of wool, 20; clothing and costumes, 16; laces, fans, and flowers, 9; toilet articles, 3; traveling equipments, 2; rubber, gutta-percha, celluloid, and zylonite, 3; war material, 6; lighting appliances, 1; heating apparatus, 4; and vaults and hardware, 3. Total, 178.

The unassuming booth of the Royal porcelain Factory of Worcester cost $10,000 and that of the Doulton Pottery company, $25,000. There is a service made for the Prince of Wales, who afterwards became King George IV., that will prove a stumbling block to somebody's economical intentions. It is of silver gilt, and consists of a tea-kettle and a coffee pot in addition to the usual full tea service. The tea-caddy, which, like the other pieces, is severe in outline and unadorned, is furnished with a lock and key, a significant reminder that when it was made tea was worth something like $40 a pound. The service bears the date 1792-1795. A Norwegian "peg" tankard made in 1683, a lemon strainer of the time of good Queen Anne, old Irish bowls, with mask-head handles, made in 1707; sauceboats that once belonged to Queen Caroline, way back in 1782, are among the many quaint things in this exhibit.

A costly piece that is especially rare is a little square waiter engraved in a conventional scroll design by Hogarth and made in 1720. The price of this is $500, and that notwithstanding it is only four inches from edge to edge. A large chased silver rosewater dish, made in 1683 and valued at $800, is also regarded with respect by those who have it in charge. Another remarkable piece is a Spanish wine "nef" or ship in silver exquisitely chased with figures of sea nymphs and tritons. The top of this massive piece of plate lifts off and so transforms it into a wine cup. The date is uncertain, but the ship plainly belongs to the fifteenth century. Not of

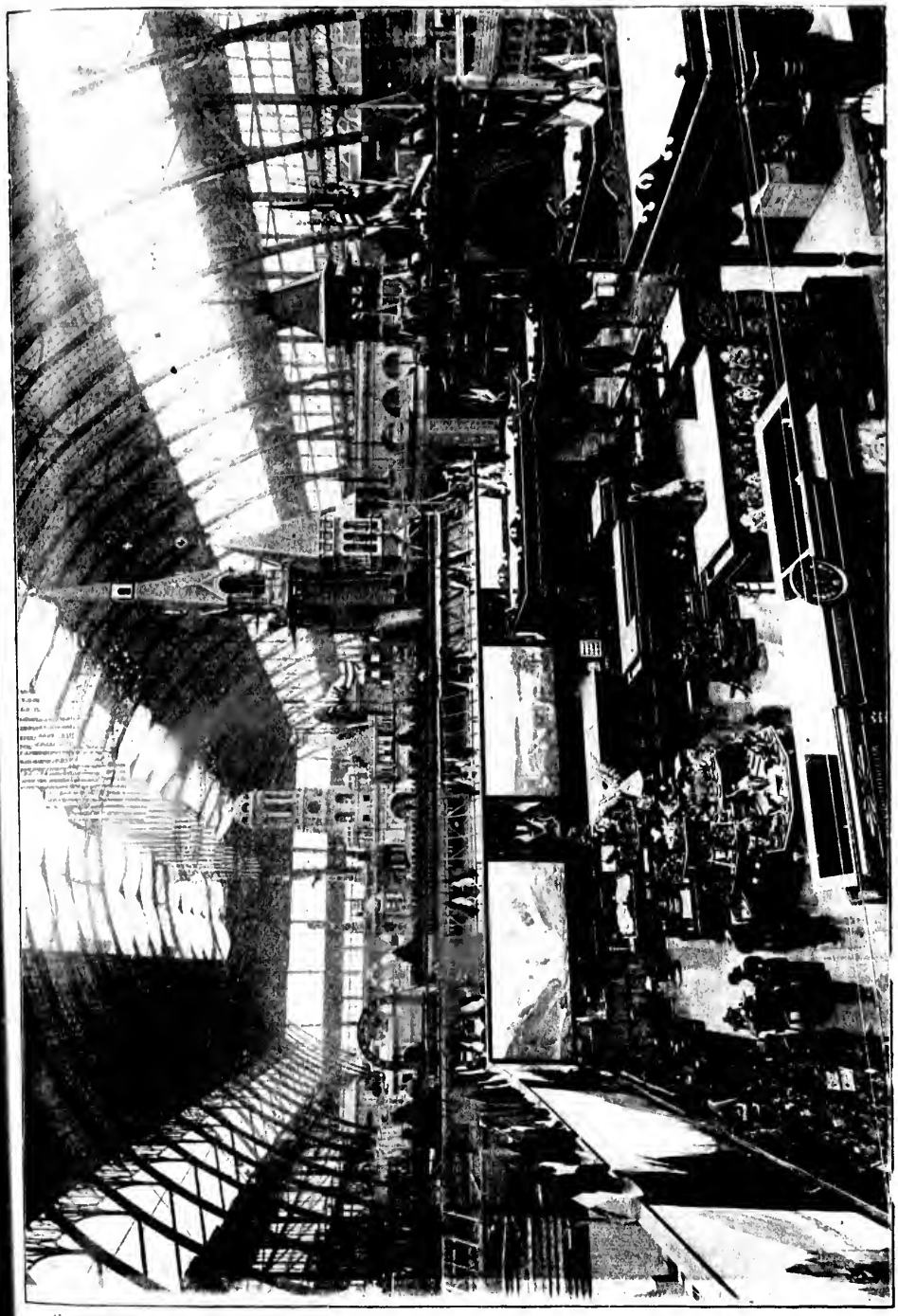
least importance in this display of Wells Brothers is the great silver gilt crown worn by the Duke of Sussex at the coronation of Queen Victoria.

In striking contrast to the old ware are the "Exposition Clock," the "Columbian Shield," and the "Shakspearean Casket" exhibited together. The Exposition clock is a remarkable bit of workmanship, as the price set up it, $5,000, indicates. It is octagonal in form, and is composed of finest American walnut, with elegantly chased, richly gilt ornaments, the cotton plant and flower being the principal subjects. It bears eight panels, representing the sports: swimming, running, yachting, cycling, base-ball, trotting, and jumping, with a view of Brooklyn bridge. Each panel is surmounted by a portrait of a President—Washington, Lincoln, Grant, Jackson, Franklin, Harrison, and Cleveland. There is also a medallion portrait of Queen Victoria. The clock has four dials, showing English, American, French, and Spanish times. Round the clock are twelve figures, representing players in cricket, rowing, shooting, polo, racing, lacrosse, boxing, running, tennis, football, and wrestling. Four columns support brackets with vases, between each two of which are figures signifying progress in art, science, industry and engineering. At each hour English and American anthems are played, the time being denoted by a chime of eight bells, the Westminster chimes on four gongs and the hour on one gong. All can be repeated at will. The figures revolve in procession as the clock strikes each quarter.

The shield is made entirely of silver, with panels modeled and chased in high relief, representing various schemes in connection with the discovery of America.

Unique as a specimen of the art of damascening as practised in England is the Shakspearean casket, which illustrates in gold and silver the works of the poet and playwright. The center obverse gives the portrait of the poet and playwright, as he appears in the bust in Stratford Church. The reverse medallion gives a view in gold repousse of Shakspeare's birthplace. The principal damascening portrays wreaths in different colors, a medallion, escutcheon, Tragedy, Comedy, hunting trophies, bees, anchors, boat-hook and trident, the Caduceus, scales of Justice, boarhorn and spear, helmet and sword, scroll and pen, mace, fasces, and crown, Cupid's bow, the torch of hymen, the nuptial ring, the scepter and sword of Justice, fruit-laden vase, the poisoned bowl, hissing snake, cap and bells, and the skull and crossbones of Death. There are on the body of the casket fine enamel paintings of scenes from a "Midsummer Night's Dream," "The Tempest," "Two Gentlemen of Verona," "King Lear," and "Romeo and Juliet." The lower moldings of the casket illustrate quotations from "Measure for Measure," "Comedy of Errors," "Troilus and Cressida," "Merchant of Venice," "King Henry IV.," "Timon of Athens," "Twelfth Night," "Macbeth," "As you like it," and "King Henry VI." The casket stands upon four feet in gold and damascened, and is surmounted by the Shakspearean crest, the falcon holding the tilting spear in rest. Its value is $3,000.

The caskets which were presented, one to the Emperor of Germany in 1891, one to Gladstone in 1881, together with the freedom of the City of London, are included in the collection, having been loaned by their owners. Another imposing piece of plate is the "Waterloo Cup" for 1892, shown by Mappin Bros.



GENERAL VIEW IN MANUFACTURES BUILDING.

To women who visit the exhibit nothing will so appeal, however, as a toilet service, including forty-seven pieces, all mounted in silver richly gilded. Who uses this, however, must have a substantial bank account at her disposal, as $3,000 is its value.

Plainly the pride of England, so far as its exhibit in the World's Fair is concerned, is the pottery and porcelain, arranged in attractive groups and lines of color along Columbia avenue. If one walks down that thoroughfare toward the British section from the north, Royal Worcester, in delicate tones of ivory and gold, Pompeian green, and Rose du Barry greets the eye. Just what in the beautiful exhibit of this exquisite ware best deserves notice it is difficult to state. Most people are attracted, however, by the long tables spread with gorgeous banquet services. Rose carol and gold are used in the ornamentation of plates, vases, and fruit dishes, flower jars, menu cards, lamps, and candelabra, the total value of which is $5,300, a figure which will not encourage the average giver of dinners to purchase the set.

Although the service, with its scrolls and lace-like edges and delicately painted figures, is one of the most elegant pieces of work in the collection, what is known as the rustic table is by no means without admirers. The sense of being out of doors, of hearing brooks murmur and birds sing, is what the designers of this service desired to indulge in those who used it. The centerpiece, filled in with ferns and grasses, is surrounded by a fence in gold and ivory and pink, in which impossible little shepherds are seated playing impossible little flutes. Rabbits, puppies, and a varied assortment of other small animals jump around in the grass, or would jump if the power of locomotion could be put into Worcester ware and the plates, vases, fruit dishes carry out as nearly, as possible the idea of rusticity and country delights. Whoever purchased this set, for it has been sold since placed on exhibition, paid the round, comfortable sum of $700 for it.

Altogether the most beautiful vases in the collection are of pierced work, in ivory tints, ornamented with delicate filigree of gold work. This is remarkable, not only for its delicate beauty, but for the way in which it is produced.

There is only one man in all the Royal Worcester factory that can make it. His name is Owens and he has been for years taking the vase as it comes from the moulders unglazed and unfired, cutting out the delicate patterns with a knife and designing as he goes along. The elaborate pieces it takes sometimes years to make. It is not wonderful, therefore, that the values placed upon them should be large.

Figures in soft, stained ivory are a specialty of this exhibit. They are extremely graceful and effective in every instance, whether holding a lamp, serving as the base of a great vase, posing on candelabra, or being purely and simply statuettes. The largest vase ever made at the Worcester works may be seen in Chicago. This fine specimen of porcelain is nearly five feet high and is Italian in style. It is oviform in shape; the neck, shoulders, and foot being richly embossed with strap and scroll work in high relief. The handles consist of vigorously modeled griffins' heads a Bacchante cupid surmounts the cover, while the foot is of richly modeled dolphin heads and Italian panels, and carries on either side cupids in full relief, forming a

powerful and decorative base to the whole vase. The decorations consist of elaborate pilasters and scroll work in raised gold and festoons of painted flowers typifying the seasons. The idea of summer and winter is still further emphasized in the cupid groups occupying centers of the pilasters that connect shoulder and base. The pilasters and scroll work are also in modeled gold of the Italian style, a canthus foliage and scroll work being freely used to add to the massiveness of the composition. The general scheme of color is low in tone, the ware is ivory porcelain, the modeled mounts, handles, and foot are richly finished in Pompeian green and tortoise, relieved with bronzes and gold. The same low tones of green and rich bronze are relieved by the delicate colors of the natural flowers composing the festoons.

Versatility is one of those things upon which those who have the display in charge congratulate themselves. Besides the many beautiful varieties of purely ornamental ware that is as remarkable for expense as for artistic quality there are plenty of useful cups, plates, tea services, and even dinner sets in Royal Worcester that are comparatively cheap. From 60 cents to $6,000 the scale of prices slides according to the article purchased.

Doulton ware, because it shows what beautiful effects can brought from coarse material, is one of the most interesting of the English potter exhibits. It is given a conspicuous place on Columbia avenue and represents perhaps a greater monetary value than any other collection. Some remarkable vases are included in the ware which the Doulton people have brought to Chicago. The booth is divided into two arcaded pavilions draped with dark green plush curtains and painted in shades of light green. The architectural enrichments of caps, frieze, spandrels, cornice, and lantern with which it is made beautiful were all specially molded at Lambeth. As seen from the avenue the pavilion on the right is devoted to the Burslem exhibits and the central hall and left pavilion to those of the Lambeth works.

What most attract attention in the Lambeth exhibit are naturally the large pieces. Prominent among them is George Tinworths' "History of England" vase. This remarkable piece of pottery stands four feet four inches high. Around the widest part of the body is a succession of niches twenty in number containing little groups representing leading incidents in English history, and around the neck is another series of twenty single figures that are faithful portraits of English monarchs. This is quiet in coloring, the old Doulton blues and browns predominating.

Rather remarkable as being the work of a woman is a beautiful vase two feet in heigth, finished in the familiar glazes peculiar to Lambeth ware. The central part is left in uncolored brown stoneware to display Miss Hannah B. Barlow's etchings of rustic life. Her sister, Miss Florence Barlow, exhibits numerous pieces decorated with charming slip-paintings of birds.

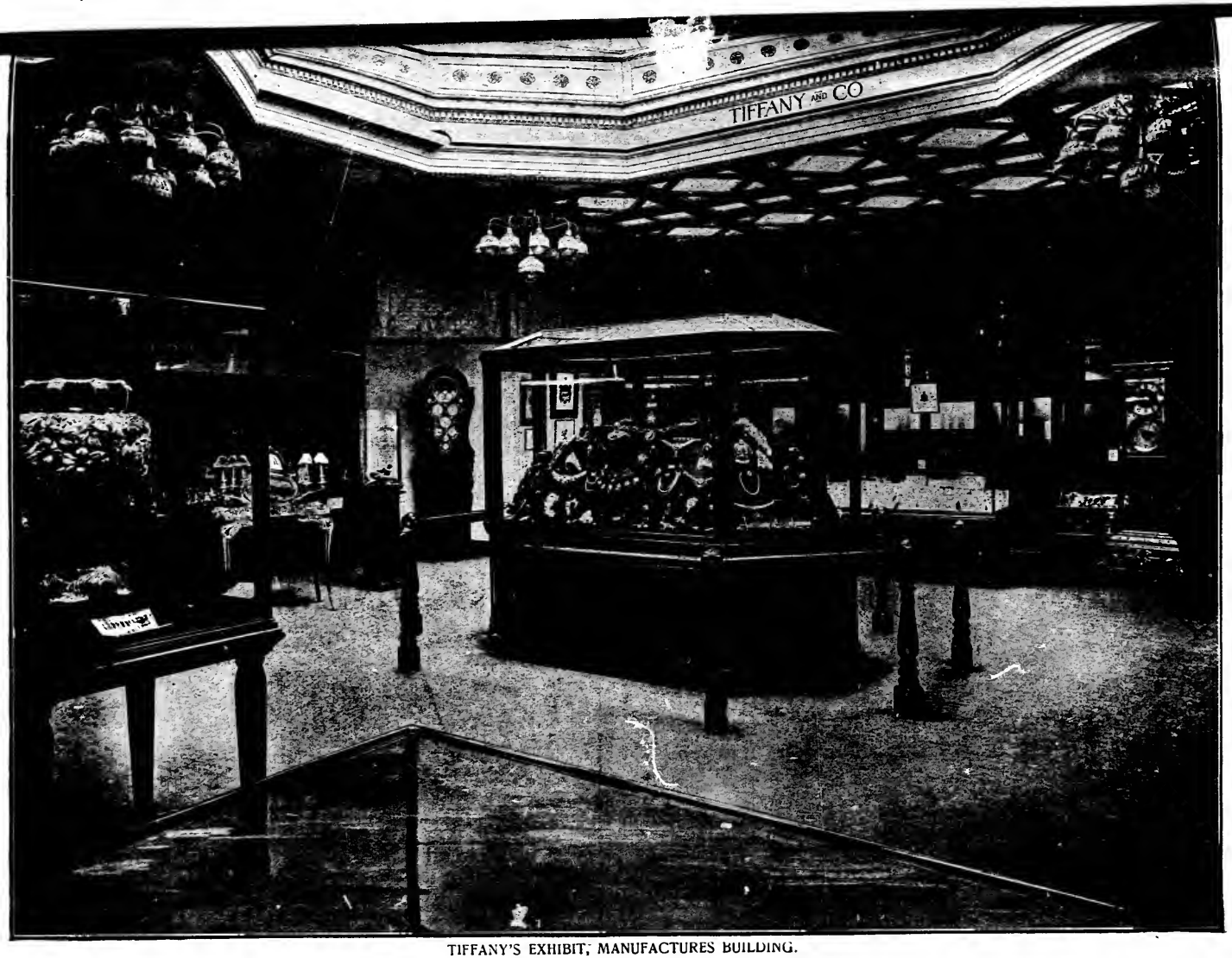
Jugs, tankards and vases all decorated with quaint figures, masses of color, and occasionally flowers, all of them effective and beautiful, are included in this portion of the display.

In Lambeth faience there are some uncommon things, among them two vases with model feet and tops finished in colored glazes. The bodies are painted one having a treatment of cactus on a background of turquois shading into orange, the other decorated with orchids on a shade of yellow ground.

The most beautiful and most valuable vases, however, appear under the Crown Lambeth section. These are especially important as being in several instances the first appearance in public of this exquisite ware. Most striking among them is a pair of large vases designed by John Eyre. The body of one has an exquisite painting upon it, representing the legend of "Perseus and Andromeda." The scene represents a rocky coast. In the foreground stands the nude figure of Andromeda. Through the clouds just discernible in the purple that veils the horizon may be seen the winged steed, Pegasus, bearing the hero. On the opposite of the vase Perseus, armed with sword and shield, does battle with the dragon. In the "Ariadne" vase the daughter of Minos is shown in gilded red drapery standing alone on the seashore. The feet and upper parts of the vase are treated with groups of mermaids and all manner of strange sea things. On the cover is a statuette of Neptune.

A remarkable group of great vases consists of those known as the Columbus, Diana, Dante and Chicago vases. To the first of these the place of honor should be given. It is nearly six feet in height. Columbus stands on the submit of it, his feet resting on an emblematic arrangement of anchors, ropes and other ship's tackle. The condition of America at the time of its discovery and the present is contrasted. The vase is divided by a curtain of tapestry, and two pictures painted by M. Labarre represent Cupid on the one side asleep and on the otherside awake and full of jollity. The Diana vase follows in style the renaissance; the goddess of the chase is represented in a sitting posture on the summit, holding a spear in her right hand and shading her eyes with her left. Cupids and nymphs wait upon her in pictures painted upon either side of the vase, and her hounds crouched at her feet. On the pedestal of the Dante vase sit four finely modeled figures of Dante and Beatrice, supported by poetry and fame. The vase is decorated in ivory and raised in chaste gilding. The figures are delicately painted a dark bronze and old ivory. The Chicago vase is also in the renaissance style. Fruit and flowers are painted upon it, and the model surfaces have been treated with much delicacy in pink, upon which a gold sheen has been added.

Copeland, Minton, and Wedgewood ware are grouped in one pavilion under the general management of A. B. Daniel & Sons. It is easy to see what in the eyes of those who have charge of it is of the greatest importance in the collection. It is the specimens of the Pate-sur-Pate process that are first pointed out. The process is of Chinese origin, consisting of the application to the surface of the vase of thin layers of liquid white china clay, in which a subject is drawn. The whole of the work is completed when the vase is in an unfired state. The effect is much the same as that of cameo work. All of the vases exhibited are the work of Mr. Solon. The largest is a reproduction of the famous Jubilee vase presented to the Queen on the occasion of her jubilee in 1887. Mr. Solon describes his own work thus:



TIFFANY'S EXHIBIT, MANUFACTURES BUILDING.

"Nymphs are bound to the rock of wisdom at the foot of Minerva's altar. Cupids approached from all sides, unfettering the captives and destroying the goddess' emblems. The value of this artistic piece of porcelain is $5,500. Besides the Pate-sur-Pate ware there are some beautiful reproductions in Copeland of Spode Swansea, and old Worcester dinner service. In Minton ware there are vases, plaques, and cups and saucers in elegant designs and beautiful colorings. The sculptured glass made by Webb of Stourbridge is one of the most unique features in this room. It also is cameo light in effect and costly in the extreme, single plaques being valued at $1,200."

Wedgewood ware shows the usual dancing girls and cupids, Grecian maidens in white against delicate blue, green, brown, and pink backgrounds. An old piece of ware that has found a ready purchaser in this country is a head of George Washington outlined against a black back-ground.

Longfellow's "Evangeline," pictured on twelve plates by A. Boullemier, is the glory of the Cauldon exhibit. The borders of the plates are treated in raised gold work and the scenes are exquisite in color. These are valued at $2,000. A Shakspeare vase fired in twenty-two pieces and beautiful in color is next in point of wonder. E. Sieffert, formerly at the Sevres manufactory, has some beautiful ware in old ivory coloring painted with delicate little French scenes. Landscapes by Ellis, game sets painted with great faitfulness by J. Birbeck, and dainty figures by T. J. Bott are included in this fragile art display. A striking vase has painted upon it Columbus before Queen Isabella, after the original in the Metropolitan Museum. This was produced with an infinite amount of pains and faithful work, in view of which $2,000 does not seem too much to ask for it.

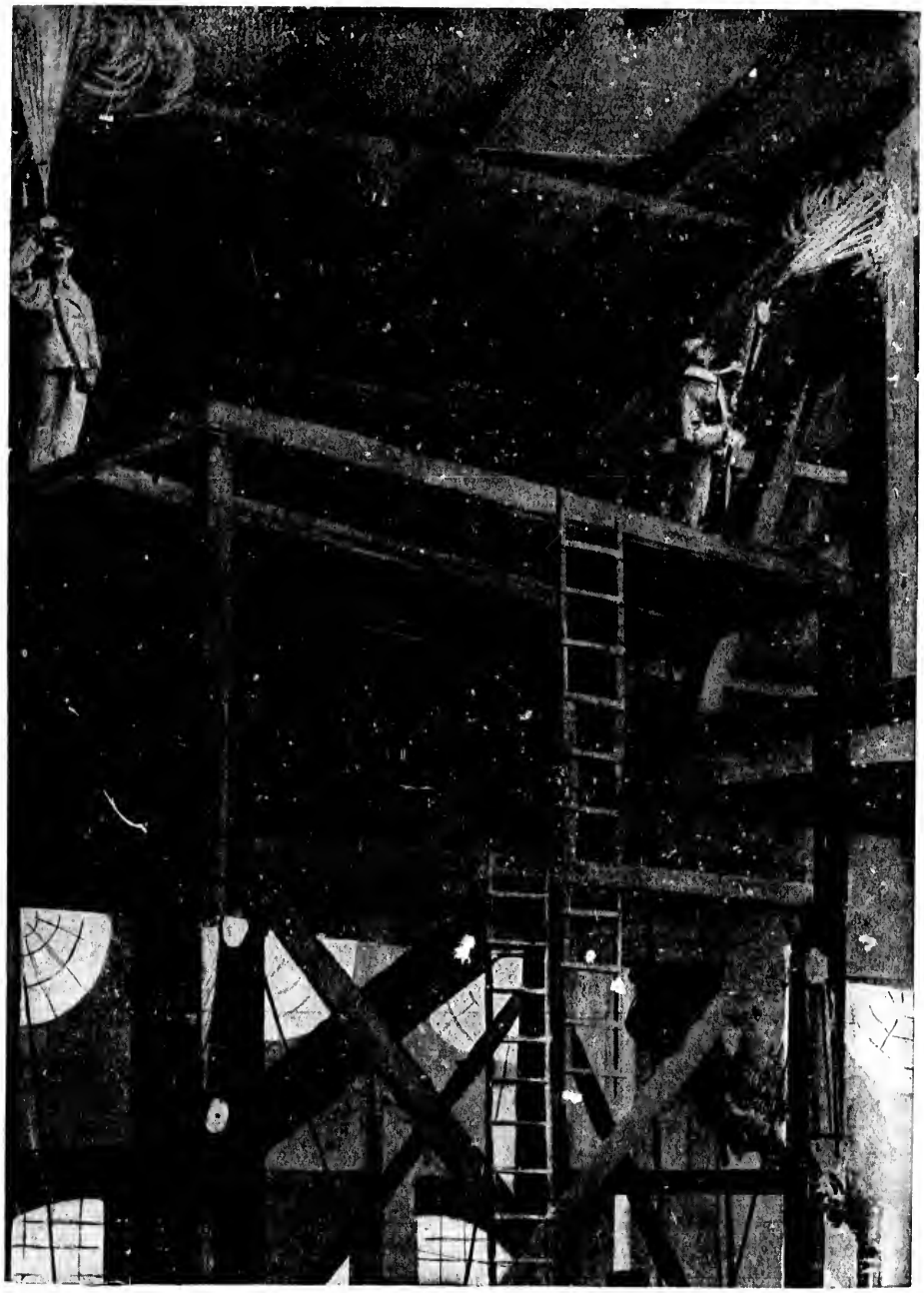
From a purely feminine and domestic point of view the gem of the collection is not, however, a vase, but a dejeuner service painted by Boullemier for the Duchess of Sutherland. The pieces are ivory-tinted and ornamented with gold. On each is a little scene that is essentially French and mischievous in character. The price of the service, it may be of interest to know, is $500.

Russia makes a splendid exhibit of furs, lapis lazuli, malachite, onyx, and shows off handsomely in ornamental woods. The exhibit comprises a full representation of all the manufactures of the country. Most prominent among these, and probably most typical, is the fur exhibit. The Russian bear occupies a conspicuous place in this department, and other fur-producing animals abound in great quantity. The display of manufactured furs is probably the finest in the building, although several American furriers have exhibits that are fine in quality and comprehensive in their range. Russia takes the lead as a fur-producing country, and it is only natural that a great deal of attention should be directed to the manufacture of this article into wearing apparel. But Russia also has an exceptionally fine exhibit of all the articles of household use. There is a fine display of furniture, covering both the cheap and expensive grades. Of the latter class there is an exceptionally fine exhibit of carved work in oak, mahogany, and other fine woods. It is of the product of their looms that Russian manufacturers are especially proud. There is a fine display of both cotton and woolen fabrics, and the prices of the

same are exceedingly low, as compared with the products of the United States or even European countries. In the line of crockery and porcelain there is also a fine exhibit. Some of the paintings on this material are of the finest sort, both in design and execution. Then there is a display of papier mache articles which are unique in design and decoration. But the exhibit which attracts the greatest attention is the display of silver and gold manufactures. In the former line particularly the display is unusually fine. There are articles for use and ornament in filigree work, beautifully enameled of every imaginable design. Then, too, there are a great profusion of precious stones from the mines of Siberia. In the government's contribution to the exhibit there are samples of the paper currency of the country, the postage and engravings of the coin of the realm. There are also portraits in oil of the present royal family, and engravings of the czars from the time of Peter the Great. There is also a collection of all the forms of public documents in use by the government. Russia also claims the honor of being the first country to put aluminium to use in the arts, and to support this claim has an exhibit of horseshoes made of this light and durable material. Altogether the exhibit is one which reflects credit alike on the government and the individual exhibitors.

Bulgaria makes a neat exhibit, mostly carpets and silks. It makes a special exhibit of its famous attar of roses, made from the petals of a rose which grows in only one valley, near the Shipka Pass in the Balkan mountains. The women and girls go down early in the morning into Rose Valley, as it is called, and gather the flowers while the dew is still upon them. In no other place will this delicately perfumed rose grow to such perfection. Another interesting exhibit is the Bulgarian silver filigree work, which is really only a survival of an ancient craft and is comparable to the work produced by the Hindoos and the Japanese. The manufacture is entirely in the hands of a few families in Widin on the Danube, with whom knowledge of the work and skill in executing it becomes an hereditary gift, handed down from father to son. The work takes generally the form of silver cups and dishes, in which the coffee and sweets are offered to visitors after the manner of Eastern people.

For concentrated splendor and condensed costliness, the Siamese pavilion and exhibit excel anything in the Manufactures building. The pavilion is only 26 feet square and 32 feet high, and its contents are estimated to be worth $300,000. They are therefore well worth a careful inspection. The pavilion is itself a more than usually interesting one, as it was made in Siam, is an exact reproduction of the garden house of the King, at Bangkok, and is the identical Siamese pavilion of the Paris Exposition, a little rusty in some places, but almost as good as new. Its floor is elevated four steps above the dais on which it stands. It is supported by several slender pillars, and is open all around. On each of the four sides the roof is a sharp gable, and in the center is drawn up to a sharp point and loaded with ornament. The material is wood painted red and yellow, and inlaid everywhere with bits of glass of various bright colors. The effect is excessively bizarre, and the structure almost looks like a huge piece of jewelry. Entering the gorgeous building, one notices first the native Siamese matting on the floor, and next a large



PAINTING BY MACHINERY.

display of photographs of the Siamese royal family and of scenes in the Siamese capital. Standing around on every side are enormous screens, used to produce the semi-privacy of a warm climate. They are four feet high and three feet wide and are embroidered in solid gold with a lavish richness and beauty that have no equal in the Exposition. The embroidery represents grasses, vines, flowers, fruits, and birds, all raised in bas-reliefs. On one of them the coat-of-arms of Siam and on another the arms of the United States are embroidered in an inimitable manner by the King's sister. Embroidery seems to be the ruling passion of the Siamese, and in a large perpendicular show-case there is an assortment of pillows, cushions, foot-rests, sashes, girdles, smoking jackets, and tea cozies, used to clap over a tea-pot to keep it warm, all of which are dazzling object lessons in the Oriental passion for luxury and display. Most of these articles are of a size equal to two cubic feet, and all of them are constructed of the richest silks and satins and then embroidered with the divinest skill in pure gold, until they must be almost too heavy for practical use. Among the rest is a girdle of white satin six inches broad and several feet in length, which, in addition to being gold-embroidered, is thickly studded with rubies and garnets, and is held to be worth $300. The display of gold and silver articles is even richer still. Rice is regarded as a plain diet, but it costs a good deal to eat it out of such a rice-bowl as is on exhibition here. It stands two feet high, with its arched cover, is made of solid silver, elaborately chased, and sells for $3,000. There is a full line of table articles in solid gold, curiously inlaid with blue enamel. Betel trays, for the enjoyment of the betel nut, made of pure gold, and in one case studded with diamonds, stand around, waiting for customers at $2,400 each. It seems that cuspidors are necessary in Siam as well as in Chicago, though considerably smaller, and these also are of solid gold, studded with diamonds. One can buy one of these nice spittoons for $240. Of course one finds here a wonderful display of ivory and ivory goods. One of the entrances is flanked by a display of elephant's tusks, and Mr. Hicks, who is in charge, delights in pointing out a pair of tusks, one of which he affirms is the largest piece of ivory in America. It is 9 feet 6 inches in length, and is so long that it evidently embarrassed the elephant that bore it. It dragged on the ground until at least a foot of it must have been worn away, and the poor beast must have been compelled to elevate his head constantly in an unnatural and painful manner in order to walk at all. In a show-case near by is a collection of ivory carvings, some of which are useful, such as paper-knives, and some merely ornamental, such as decorated tusks. One of these tusks has been carved until there is only a shell of it left, and that in a form as airy and beautiful as a piece of lace. Although labor is pretty cheap in Siam the price of the tusk is $1,250. Around the pavilion is a sort of out-door exhibit. Here are some beautiful hatracks, made of antlers, and a set of alleged musical instruments, which includes gongs, drums, chimes of bells, and a bona fide xylophone. The office of the pavilion, a small closet on the outside, is decorated with the skins of Siamese animals, such as the leopard, tiger, otter and minx.

The Danish pavilion ranks well with Germany, France, and Austria. Even in the exhibit proper the two most interesting displays are those commemorative

of Thorvaldsen and Andersen. At the southeast corner there is a reproduction in miniature of the museum of Copenhagen built by Bertel Thorvaldsen and presented to the city, containing miniature casts of all the works of art contained in it, which includes nearly all the original work of the great sculptor. In a case alongside of it are personal relics, including the hat worn by him at the triumphal entry into Copenhagen in 1838, the medal of the order of knighthood conferred upon him by the King, his favorite pipe, cigar cases, match boxes, autograph letters, and some of the tools used by him. There is a portrait of Thorvaldsen by Horace Vernet, the famous French artist, showing the sculptor standing before the bust which he had made of Vernet.

Hans Christian Andersen, writer of fairy tales and equally popular in all civilized countries of the world, is brought to memory by the large collection of personal relics. The full manuscript of his autobiography, along with several of his tales in the original occupy a case. There is a fire screen made by Andersen from clippings from pictorial papers containing views of Denmark and of contemporaries of his, including members of the royal family and brother artists and authors. All of the furniture in the space is from Andersen's home and was used by him. There are the desk on which he wrote, the last inkstand he used—an elaborate affair in silver enameled in a fanciful and artistic design—a sofa with pillows and embroidered covers, a big hall clock, chairs, pictures, a pair of spectacles, pens, and little articles of personal use, all from the royal museum in Copenhagen and loaned for the first time for this exhibit. "Picturesque America," presented to him by American citizens, is among the other articles shown.

At the extreme west end of the exhibit and over the west entrance is a ceramic display designed by Prof. Lorenz Frolich and executed by Prof. Herman Kahler. The painting is on tile six inches square and the entire work occupies a space six feet wide and eighteen feet long. The title is "The Daughters of Aegir Drinking to Him." The king of the sea is represented standing on the sea coast with his mermaid daughters about him, and on either side of the painting proper there are two figures of mermaids, one playing a harp, the other blowing a sea shell.

Just in front of this, inclosed in a glass case, is a model of the free port of Copenhagen, which is soon to be opened. This model is surmounted by a map of the world, showing the routes of the various lines of commerce, including those across the Atlantic Ocean.

The summer residence of King Christian IX., known as Rosenborg Castle, built in 1604, is shown in a model made entirely of gold and silver. There are 1,700 pieces used in its construction. Several cases are filled with gold and silver work from the larger jewelry manufacturers of Copenhagen, and there is an extensive exhibit made of wares from the royal porcelain works.

King Christian IX. is represented in an equestrian statue of silver and gold, the horse shown being his favorite animal. This stands three feet high. The pottery exhibit is one of the interesting features. A number of black terra-cotta figures which look like iron or bronze are shown, the color of which is obtained entirely

through the burning. There is a special clay which is found nowhere else used in its making. There are two spaces filled with furniture exhibits and samples of work from the schools of Copenhagen which form another interesting feature. Aksel Mikkelsen has made a model of a Danish manual training school showing the work benches, the tools and machinery used, and with models of pupils at work.

One of the most beautiful characteristic booths that adorn the Manufactures Building is the oriental building of the Persian section. Though begun much later than most of the buildings it was finished with American push and enterprise and is one of the most beautifully equipped treasure houses of the great fair. Besides curiosities of ancient Persia and rare and costly gems of eastern ingenuity sent over by the Shah of Persia himself, the exhibit presents the fullest display of the antique art of the eastern loom. The Persian section is the fruit of the energy and enterprise of a young Armenian, H. H. Topakyan, who through the commission of the Shah was appointed imperial exhibitor for the whole Persian section. Mr. Topakyan is a native of Turkey and came to this country five years ago from Constantinople.

Besides the ordinary collection Mr. Topakyan has on exhibition six immense silk rugs belonging to the shah and valued at $50,000 each. At the close of the exposition one of the rugs will be given to the United States government.

Mexico's exhibit is in the extreme southwest corner of the Manufactures Building and occupies 6,000 feet of floor space inclosed by a partition of mahogany and glass. There are twenty-one cases of bronze with glass sides which hold exhibits and about the walls are wood carvings, cabinets, bronzes, statuary and other articles of a similar nature. The balcony which overlooks the exhibit is covered by full length oil portraits of prominent officers in the Mexican army and Gen. Diaz is represented by a bronze bust, another carved from parafine and a third cut from a solid block of sterine. Along the west wall of the partition are some fine specimens of sixteenth century church carvings in wood, the work of the early missionaries from Spain and the Indians, who were taught to do this class of work.

The woolen and cotton mills of Mexico are represented by their varied products, which fill several cases at the southeast corner of the exhibit. The Commissioners point to these exhibits with great pride as showing the material advancement in manufactures which has been made in the last few years. Some of the prettiest patterns shown are those of the zerapes, worn by men, and the repozos, or scarfs, for women. Further along in the cases are samples of lace work, both of hand and machine make, embroideries, paintings on silk, and table scarfs, with raised flowers worked by hand in silk thread.

One case is filled with sombreros, the huge hats worn by the peons of Mexico, embroidered in gold and silver thread and having bands and cords of the same material. There are also shown high hats of the latest fashion, which the Commissioner says are becoming popular in the City of Mexico. Canes carved by Indians fill another case, and opposite is the exhibit sent by President Diaz of cannon, swords, and cutlasses, all made in the government armory.

Bronzes, all the work of native artists, fill another case. The exhibit of pottery, almost entirely the work of Indians, of bone cooking and eating utensils, lacquer work on wood is an extensive one. The fiber of various Mexican trees and plants is shown in the natural state and in manufactured articles. The cordage exhibit includes rope, matting, hammocks, and the Indian mattresses, principally from the State of Yucatan. Copper and brass utensils for household use of all descriptions has a case, and next to it is one filled with perfumes, soaps, toilet preparations, and drugs. The stationery industry is shown, including the output of paper mills, blank book manufactures, writing paper, wrapping paper, inkstands, and office furniture.

James Allison, chief of the department of manufactures, may rightly be called the Director General's first lieutenant. Mr Allison has command of the largest exposition building ever erected, and the manner in which he has handled the vast range of exhibits comprehended in his department demonstrates the wisdom of his appointment to the most important division of the Fair. His success as President General Manager of the Cincinnati Exposition of the Ohio Valley and Central States at Cincinnati, the largest and most comprehensive of its kind since the Philadelphia Centennial, also demonstrated his ability to fill the position to which he has been called. Mr. Allison was born at Frankfort, Pa., June 30, 1843, and is of Scotch descent. When 12 years of age he removed with his parents to Jefferson County, Indiana, and until he was 17 his life was that of an ordinary farm lad. At an early age he developed a taste for mechanics which drove him from the peaceful life of the farm to seek the natural outlet for his energies in mechanical employment. This he found in Cincinnati, but the breaking out of the war of the rebellion interfered somewhat with his plans. In 1861 he enlisted as a private in the Sixty-seventh regiment volunteer infantry and served with credit to himself until the close of the war. He participated in all the engagements of the regiment, receiving meritorious promotion and honorable discharge. Returning to Cincinnati he completed his trade, that of a plumber and sanitary engineer, and was soon made a partner in the leading house of the west. For the past fifteen years he has been a recognized authority on sanitary matters. For two years in succession he was elected President of the National Association of Master Plumbers of the United States and a member of the American Health Association. For many years he has been a director and the President of the Ohio Mechanics' Institute, and Cincinnati House of Refuge. Having served as a member of the Board of Commissioners in former Cincinnati Industrial Expositions under appointment of the Ohio Mechanics' Institute, he was again reappointed and on organization of the board in 1888 was unanimously elected its president, and in his official capacity was untiring in his efforts for its complete success. Early in the summer of 1891 he was appointed chief of the horticultural department of the fair, and subsequently organized and became the chief of the department of manufactures.

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CHAPTER III.

DEPARTMENT OF LIBERAL ARTS.

The Most Important Educational Feature of the Exposition—Wonderful and Complete in Every Detail—Tremendous Advantages to be Derived From this Matchless Exhibition—Every State in the Union and Nearly Every Country in the World Represented—Splendid Exhibits from Montreal and Quebec—An Interesting Display by the American Bible Society—The Lincoln Manuscripts—The Only Letter that Jefferson Davis Wrote to Abraham Lincoln—Tens of Thousands of Unique and Charming Features—Sketch of Professor Peabody—"Trip Around the World."

THE same great roof covers the Department of Manufactures and that of Liberal Arts, chief of which is Selim H. Peabody. This department is divided into 12 groups, respectively of (1) physical development, training and condition and hygiene and treats of the nursery and its accessories, athletic training, alimentation, sanitary construction, food inspection, immigration. (2) Instruments and apparatus of medicine. (3) Primary, secondary and superior education, which treats of elementary instruction, infant schools and kindergartens, models of schools, appliances of teaching, specimens and diagrams and text boots of primary schools. Domestic and industrial training for girls—models and apparatus for the teaching of cookery, housework, washing and ironing, needle-work and embroidery, dress-making, artificial flower-making, painting on silk, crockery, etc. Specimens of school work. Handicraft teaching in school for boys—apparatus and fittings for elementary trade teaching in schools. Specimens of school work. Science teaching—apparatus and models for elementary science instruction in schools. Apparatus for chemistry, physics, mechanics, etc.; diagrams, copies, text-books, etc.; specimens of the school work in the subjects. Art teaching—apparatus, models and fittings for elementary art instruction in schools; diagrams, copies, text-books, etc., specimens of art work, modeling, etc., in schools. Technical and apprenticeship schools.—Apparatus and examples used in primary and secondary schools for teaching handicraft; models, plans and designs for the fitting up of workshop and industrial schools; results of industrial work done in such schools. Special schools for the elementary instruction of Indians. Education of defective classes—schools for the deaf, dumb, blind and feeble-minded; adult schools for the illiterate. Public Schools—descriptions, illustrations, statistics, methods of instruction, etc. Higher education—academies and high schools. Descriptions and statistics. Colleges and universities. Descriptions, illustrations of the buildings, libraries, museums, collections, courses of study, catalogues, statistics, etc. Professional schools—theology,

law, medicine and surgery, dentistry, pharmacy; mining, engineering, agriculture, mechanic arts; art and design; military, naval, normal, commercial; music. Government aid to education—national Bureau of Education—reports and statistics. (4) Literature, books, libraries and journalism—divided into classes as follows: books and literature, with special examples of typography, paper and binding, philosophy, religion, sociology, philology, natural sciences, useful arts, fine arts, literature, history and geography; cyclopedias, magazines and newspapers; bindings, specimens of typography. School books. Technical industrial journals. Illustrated papers. Newspapers and statistics of their multiplication, growth and circulation. Journalism; statistics of: with illustrations of methods, organization and results. Trade catalogues and price lists. Library apparatus; systems of cataloguing and appliances of placing and delivering books. Directories of cities and towns. Publications by governments. Typographical maps. Marine and coast charts; geological maps and sections; botanical, agronomical, and other maps, showing the extent and distribution of men, animals and terrestrial products; physical maps; meteorological maps and bulletins; telegraphic routes and stations; railway and route maps; terrestrial and celestial globes, relief maps and models of portions of the earth's surface, profiles of ocean beds and routes of submarine cables. (5) Civil government, public works, and constructive architecture—treating of all kinds of land surveys, drainage, specifications for bridges, aqueducts, working plans of masons, carpenters and other mechanics. (6) Instruments of precision, experiment, research and photography. (7) Government and law. (8) Commerce, trade and banking. (9) Institutions and organizations for the increase and diffusion of knowledge. (10) Social, industrial, and co-operative associations. (11) Religious organizations and systems, statistics and publications. (12) Music and musical instruments—presenting history and theory of music, music of primitive people. Crude and curious instruments. Combinations of instruments, bands and orchestras. Music

STATUE OF NEPTUNE.

books and scores. Musical notation. History of literature and music. Portraits of great musicians. Self-vibrating instruments, drums and tambourines; cymbals, triangles, gongs, castanets, "bones." Bells, chimes and peals. Bell-ringers' instruments. Musical glasses. Glockenspiels, zylophones, marimbas. Music boxes. Stringed instruments played with the fingers or plectrum. Lutes, guitars, banjos and mandolins. Harps and lyres. Zithers, dulcimers. Stringed instruments played with the bow. The violin. The viol, viola, viola da gamba, viola di amore. The violoncello and the bass viol. Mechanical instruments, hurdy-gurdy and violin piano. Stringed instruments with key-board. The piano-forte square, upright and grand. Actions and parts of a piano. The predecessors of the piano.—Clavicytherium clavicymbal, clavichord manichord, virginal, spinet, harpsichord, and hammer harpsichord. Instruments and methods of manufacture. Street pianos. Wind instruments, with simple aperture or plug mouthpiece. The flute, flute-a-bec. Syrinx. Organ-pipes. Flageolet. Wind instruments, with mouthpiece regulated by the lips. The clarionet, oboe and saxophone. Wind instruments with bell mouthpiece, without keys. The trumpet (simple) and the bugle (oliphant.) Alpenhorn. The trombone (with slide and with finger-holes). The serpent, bassoon and bagpipe. Wind instruments with bell mouthpiece, with keys. Key bugles, cornets, French horns. Cornopeans, orphicleides. Wind instruments with complicated systems. The pipe organ. Reed organs, melodeons and harmonicas. Accordions, concertinas and mouth organs. Hand organs and organettes. Automatic organs, orchestrions, etc. Accessories of musical instruments—strings, reeds, bridges. Conductors' batons, drum-majors' staves. Mechanical devices for the orchestra. Tuning forks, pitch-pipes, metronomes, music stands, etc.

WEST SIDE OF MANUFACTURES AND LIBERAL ARTS BUILDING.

Music in relation to human life—musical composers. Great performers. Great singers. Portraits. Biographies. Concerts and the concert stage. The opera. The oratorio. Masses. Church music and sacred music of all periods. Hymnology, ballads, folk-songs, and folk-music of all lands. National airs. The theatre

and the drama. The stage. Plans and models of stages and theatres. History of drama, so far as can be shown by literary record. Portraits of actors. Relics of actors. Playbills, etc. Costumes, masks, armor, Scenery. Appliances of illusion, etc. Plays of all ages and people.

To the student and to the teacher alike is the department of liberal arts a mecca for the mind; and it must be regarded, on the whole, if not so winsome as diamonds and pictures and flowers, nor so spectacular as fountains and fireworks and electrical displays, as the greatest and most serviceable educational feature of the Exposition. Indeed, no tongue can tell—no pen can faithfully describe—the tremendous advantages that are being derived from this matchless exhibition in the space allotted to liberal arts. Nearly every state in the union is largely represented, as well as nearly every country in the world.

As one among half a million unique and interesting exhibits that came from Quebec, under charge of Canon Bruchesi, D.D., appointed by the government, assisted by Brother Pelerinus, is entitled to special mention. The collection comes from 200 convents and academies, and the McGill University, Protestant, of Montreal. The exhibit of the latter is not as extensive as the merit of the university warrants, but the space could not be obtained. The work represented shows the system of education of the convents and academies by grades, from the first step to the graduating course. There are compositions in English, French, German, and Spanish by pupils of the various schools, and some of these are illustrated with pen drawings by the student, the subject being treated of in a two-fold manner. Great albums contain samples of needlework from the simplest bit to the finest crochet and lacework. The name of each worker and her age are appended to the article. The ages range from 8 to 16 years and some of the work is remarkable. In one exhibit work is shown in flax, from the preparation of it on through its several stages, the last being a woven article. This is done by the students of Ursaline Convent, Robertvue, Lake St. John. The work of the blind in the asylum at Montreal, under the direction of the Gray Nuns, is but another revelation of the ability of the blind. One example will illustrate: A blind girl 11 years old wrote a poem in French. The manuscript is shown. Then she copied it from a type machine and the typescript is perfect. The history of the Institute of the Congregation of Notre Dame (burned a few months ago) from its foundation in 1620, by Marguerite Bourgeoys, is shown in a large frame, the priests, sisters superior, and others appearing in pen sketches. Oil paintings and sketches by the deaf mutes of Montreal are interesting. In a glass cage are 18,000 pressed flowers, each analyzed, all from the soil of Canada. The exhibit, as a whole, is varied and many things there are curious, and all are creditable to the system of education in the old province. Brother Maurelian also makes a wonderful exhibit.

A curious and interesting exhibit is the one prepared by the American Bible Society. In a general way the purpose of the Bible Society is to show the work it has accomplished and the progress it has made in the seventy-six years of its existence. Copies of each of the annual reports and bound files of the *Bible Society Record* occupy shelves in one of the eight cases of which the exhibit is contained. In

EXHIBIT OF ANSONIA CLOCK COMPANY.

the same case also appears specimens of the electrotype plates used in printing the Scriptures. Two of these plates are especially noteworthy, one of them having been employed in the set used in printing 980,000 copies of the 5-cent edition of the New Testament, a total edition numbering 3,300,000 having been issued since 1878. The other plate is one of those used in supplying 876,000 copies of the 2,054,000 20-cent Bibles which have come from the society's presses in the same period.

Many rare and valuable volumes from the library in the Bible House are placed on shelves for the inspection of the public at the Fair. Among them is a copy of the original King James' edition of the Bible, which was published in 1611. There is also displayed a fac-simile of the first page of the first Bible ever printed, the famous Mazarin Bible of 1450, and a copy of the Biblia Pauperum, representing the style of printing from wooden blocks before the invention of movable types. The English Hexapla, showing six early versions of the Scriptures at a single opening, together with the Greek text, is also exhibited.

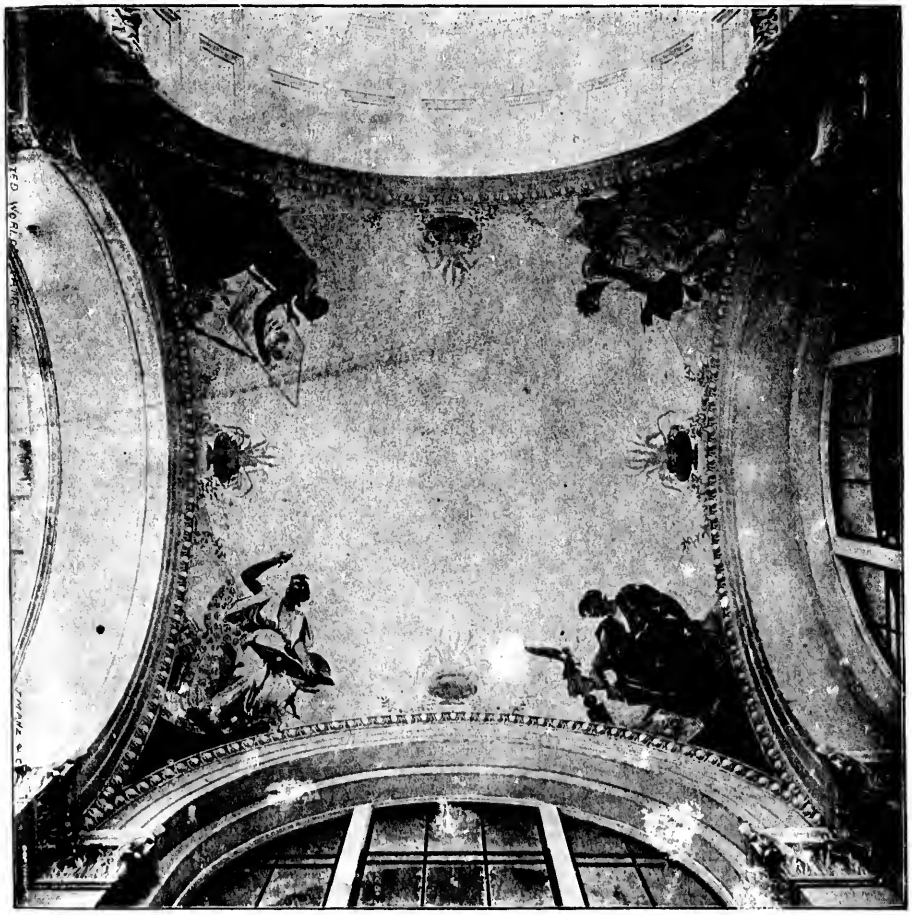
In order to demonstrate the great advancement made in the publication of the Bible in other tongues, the Rev. Dr. E. W. Gilman, who has charge of the foreign department of the society's business, has selected a large number of works that are printed by the society in nearly all of the 300 languages in which the Scriptures have been published. One case is especially devoted to the Chinese language and its colloquials, to exemplify the stupendous difficulties that have been overcome in mastering the multitude of dialects which the Celestial tongue presents to the translator.

Like many other volumes in the collection, the Chinese books lie with open pages, so that they may be more readily seen; and copies of Marshman's, "The Delegates," and Bridgman & Culbertson's and Dr. Schereschewsky's versions of the Scriptures in Chinese are included in the list of these works. Specimens of the Mandarin, Foochow colloquial, Ningpo colloquial, Amoy colloquial, Soochow colloquial, Swatow colloquial, and others are among those presented. Complete or detached portions of the Scriptures in the Turkish, Arabic, Syriac, Persian, Urdu, modern Greek, Siamese, Burmese, Pali, Tamil, Tulu, Marathi, Ponape, Tibetan, Npongwe, Sheetsiva, Azerbijan, Osmali-Turkish, Mende, and other languages form part of the exhibit.

A separate case has been provided for the Scriptures in Hawaiian, Ehon, Slavic and Bulgarian, together with bilingual specimens showing the two languages in parallel columns. Of these are the New Testament in German and English, in French and English, in Portuguese and English, in Welsh and English, in Danish and English, and Swedish and English.

In one of the cases is a display of a quantity of curious objects which have been taken in barter in exchange for the Scriptures in far-off lands, and remain a lasting record of the travels of American missionaries. In this collection is a copper coin that is more than eighteen centuries old. It was coined in China in the year 25 A. D., and was given in exchange for one of the Gospels to an agent of the society in 1880. Several cowries, queer African shells, which are used as money by the natives, and a number of ancient copper coins, received by Dr. Jacob Chamberlain

in return for Bibles during his famous tour through the interior of India, are shown. Other notable curiosities are a photograph of a Roman manuscript of the Pentateuch that is over 900 years old. This manuscript was found in China in a Hebrew synagogue, where it had been in use for centuries, it is supposed.



PAINTED DOME IN MANUFACTURES BUILDING.

The "Lincoln manuscripts," occupy a case by themselves. They are constantly surrounded by a throng of people who speak in low tones, and approach the case with a deference rising at times to reverence, as their eyes fall upon the handwriting of the martyred President. The original draft of the proclamation, dated

April 15, 1861, calling out 75,000 men, scarcely looks like the power which made the North quiver to its center and wrought patriotism to fusing heat. It lies near Lincoln's letter accepting the nomination for President. A corrected proof of Lincoln's inaugural address, with his own interpolations and additions, is one of the papers, and a letter accepting a challenge to a duel sent by State Auditor Shields, in which Lincoln specified the largest of cavalry sabers as weapons, is another. The only letter that Jefferson Davis, as "president of the confederate states of America," ever wrote to Abraham Lincoln, as President of the United States, is in the collection. Twenty-five or thirty letters, orders and other communications from the collection are arranged around a life mask of Lincoln taken by Leonard Volk of Chicago in 1860. Casts of Lincoln's hands are shown.

A collection of manuscripts of many present-day writers affords a fine opportunity for a comparative study of chirography, especially by those who affect to read character in the pen strokes of genius. Thomas Bailey Aldrich wrote "The Chevalier de Resseguier" in a precise backhand as plain as print. Henry James according to the manuscript, handles his pen with vigor, a strong, dashing hand. W. D. Howells in writing his story, "A Florentine Mosaic," used paper of the size and quality consumed by newspaper men, but his writing is very close to the angular, stiff style adopted by fashionable women. H. C. Bunner's copy of "The Story of the Red Handkerchief" is plain and commonplace. Women gaze with considerable interest on the last sheet of manuscript in Frank R. Stockton's story of "The Lady of the Tiger?" and ask each other "Which?"

Thomas Nelson Page is represented by some of his manuscript, and so are Joel Chandler Harris, the other southern writer, and Bret Harte, Mark Twain, R. H. Stoddard, and Edmund Clarence Stedman. In a frame by themselves are a poem written just before his death by Dr. J. G. Holland, and James Russell Lowell's letter to Joel Benton, in which he so emphatically declared his Americanism. In another frame is part of Frances Hodgson Burnett's tale of "Little Lord Fauntleroy."

The various steps from the artist's original drawing to the printed illustration are shown by the things themselves. In the wood-cut series, the drawing comes first; next the plain block of Turkish boxwood, then the boxwood coated with sizing, the photograph on the wood and finally the engraved block. The half-tone process shows the glass negative, the print from the negative to copper, the plate bitten and etched by acid, the trial proof, the final and finished plate trimmed and blocked and the last proof, all arranged in sequence. The methods of making electrotypes and reproducing pen and ink sketches are also shown, as are the processes of printing half-tones.

The making of a dictionary begins with a copy of the first dictionary ever printed. It was compiled by John Bullokar and published in London in 1616. The second dictionary, a copy of which is shown, written by Henry Cockeran, came out in London in 1623; the third was called "Glossographia," and was published by Thomas Blount in London in 1670. The Sam Johnson dictionary, dated 1755, is the eighth of the series, and the Imperial, the basis of the Century dictionary, was pub-

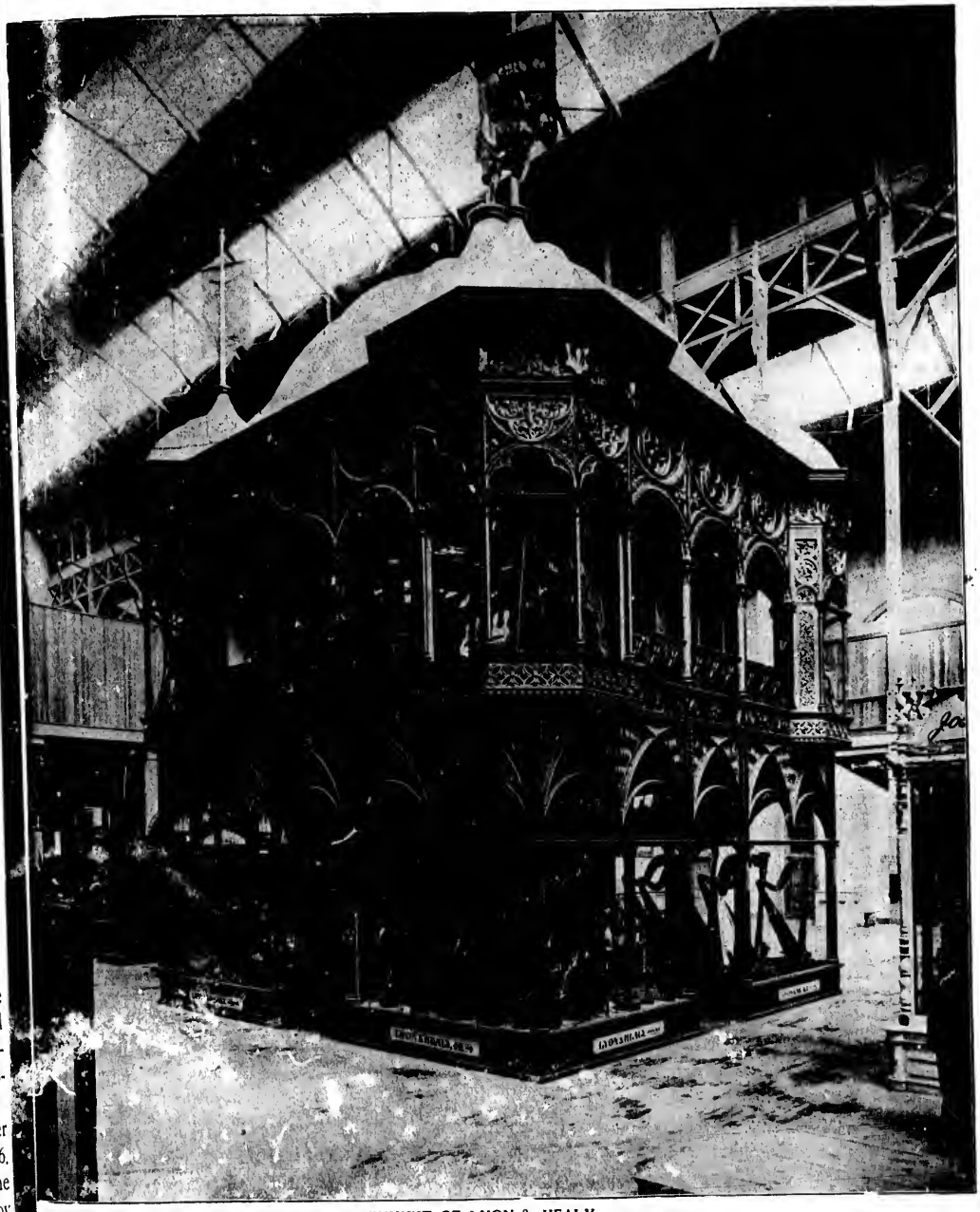


EXHIBIT OF LYON & HEALY.

lished in 1847 by James Ogilvie. The exhibit is daintily arranged and its artistic effect is heightened by so many original wash and pen and ink drawings hung on the walls that it looks like the black and white exhibition of a society of artists.

One feature which evidently commends the educational exhibit to many visitors to the Fair is its simplicity. The display explains itself. No guide books or catalogues are necessary. Where the exhibit does not speak for itself a few lines written or printed above tell the whole story. At the same time there is as much behind the exhibit, and more material ground for reflection in it, than in any collective exhibit in the big building. That is why visitors of all ages and classes stop in front of the walls and partitions upon which the educational exhibits are displayed and examine them with more care and attention than is generally given in the hurry of sight-seeing.

It is not difficult to discover the points that interest visitors the most. Everything that indicates a new advance in methods of education is quickly detected by those who have been through the school and college mill themselves at a more or less recent date.

"They didn't teach us that in my time—I wish they had!" is an expression that is heard many times in the course of the day. The older men say it with a tone of regret, which has, however, a ring of pleasure in it, doubtless prompted by the thought that their children are profiting by the latest device for imparting knowledge or quickening the intellect.

There is a charm, too, in an exhibition of work by children and students which is difficult to define, but is easily understood. Many of the states and institutions making individual exhibits in the educational section make this a special feature, and numerous are the traces of incipient genius or talent which can be discovered thereby. There is as much pleasure to be derived from the discovery of a clever stroke of pen or pencil in the work of a student as in viewing the finished masterpiece of an older hand.

When the sections of the department are found which have been given over to a display of the work done in charitable institutions, in schools for the deaf and dumb, the blind, or children of weak intellect, other considerations move visitors to give them closer attention. There is a great deal that is actually pathetic in the sight of this work, and more that is genuinely surprising. Many will leave the southwest gallery of the Manufactures Building with a clearer idea of the work and merits of such institutions than it was possible for them to have before they entered it; and it is not at all unlikely that the special schools of this kind will profit largely by their exhibits, as indeed they should.

Of course there are queer and odd things in the department that come in for a due share of curious notice. In the exhibit made by the State of West Virginia there hangs a map of the United States which is more amusing than topographically correct. Every state on the map is designated by some one of its products, and the more widely known the product the more effective it is when used on the map. Not a word appears on the sheet except the name of one school—Webster School, Wheeling, West Va.—but who could fail to recognize Kentucky when a

little colored picture of a racehorse and another of a bottle labeled "Bourbon" are seen together in one place; or Wisconsin with a beer bottle, Virginia with pipes and tobacco, a little raw cotton affixed to the more Southern States, Florida with oranges and pineapples, the State of Washington with a pile of lumber, and the Indian Territory with an Indian and a bear.

JOINING THE GREAT ARCHES IN MANUFACTURES BUILDING.

Pennsylvania deserves credit for making a big display of work done by students in her high schools and training colleges. "The manual training school is an integral part of the public school system of Philadelphia," says a placard above one series of exhibits. "The combined course of study covers three years," continues the notice, "and the school time of the students is about equally divided between intellectual and manual exercises. Two hours a day are given to shop work,

and one hour a day to the usual high school studies." Beneath this appear samples of work done under this rule, which vary from plain joinery to skilled mechanic's work and electric wiring.

Photographs of blackboard drawings are the most interesting feature of Florida's exhibit, contributed by the Volusca County Normal School. It is difficult to believe that many of these fanciful little sketches have been made with such unpromising material as a piece of chalk in the hands of a student. In the same case are samples of wood carving and the original designs from which they were cut. Half a dozen specimens of artificial flower-making from the natural feathers of birds show both skill and taste. Among them are orange blossoms, made from the feathers of the white duck and the parroquet.

No foreign country shows off better in liberal arts than Italy, as its section contains 18,000 square feet and is located on the interior floor in the northwest gallery. The exhibit includes books, photographs, musical instruments and other articles that might be included in the category of liberal arts, but nothing of an educational nature, except what is contained in the books.

Italy is jealous of her reputation in the art of bookmaking and printing, and has brought to the Fair some excellent specimens of work in this field. Ulrico Hoepli, a publisher of Milan, represented by I. E. Carnini, issued a microscopic edition of Dante in 1878, limited to 300 copies. The volumes are only about two inches long and an inch and a half wide. The book might be thought more curious than useful, but the type is so clear, though minute, that it can be read with ease. The type was destroyed when the edition was printed, so that duplication was impossible. The original price of the volume was $16, but the last copy was sold in Boston in 1883 for $50. The publisher is now offering $150 for second-hand copies to supply anxious customers. A copy is on exhibition

WINDSOR CASTLE IN SOAP.

Limited editions of other works, reaching the opposite extreme in size, have been published, and represent a degree of excellence in typograpy and binding seldom seen in America. A "Life and Works of Donatello," limited to 200 copies, sold for $75 a copy. Dante appears in all sizes, styles and quality of books, and one edition of his works is illustrated only by German artists, selling at $75 a volume.

Holepli has done much to popularize science in Italy, having published a series of science manuals, which are sold at a low price. Most of his scientific books are bound in vellum. Several American libraries are negotiating for the purchase

of his entire exhibit of 800 volumes as a nucleus for an Italian department. Two other publishing houses, one from Milan and the other from Venice, are among the exhibitors.

All the college boys visit the Yale exhibit, which consists of a general representation of the university plant by means of ground plans on a large scale of the various buildings in groups, together with a comprehensive collection of enlarged photographs. The photographs have been arranged under the following heads.

1. The grounds in general. The academic and "Sheff" campus are here exhibited on a large scale in separate views, and the old and new fence with the perennial group of college loungers in plain view on the familiar rails. The buildings stand out in outline, only the grouping of the dormitories and laboratories being the point aimed at. The old and new buildings are exhibited in separate groups, the old gymnasium, the old chemical laboratory, where Silliman and Morse made the experiments which resulted in the invention of the telegraph, and many structures unknown entirely to the modern undergraduate being all portrayed.

2. The libraries of the university, their unique appliances, the library general, and the libraries of the various departments.

3. The general halls of the university, the lecture and recitation rooms, a magnificent view of Osborn Hall, the costliest recitation hall in America, being presented. Collateral views represent the apparatus used in connection with the lectures and recitations.

4. Selected views of the interiors of the various laboratories, physical, chemical, psychological, physiological, botanical, biological, anatomical and bacteriological.

5. The interior and contents of the museums, especially the Peabody Museum, its rooms and cases.

6. The art school, with its group of painting and statuary, especially the Jarves gallery of Italian art and the Trumbull collection of historical paintings; the class-rooms and the classes at work.

7. The social side of the university, representing students' rooms in all the different kinds of dormitories, the secret Greek letter and senior society buildings, the new gymnasium, recently dedicated, and the infirmary, the only college institution of its kind in America.

This exhibit, the committee believes, represents the educational facilities of Yale, and gives as accurate a picture of the general life of the college as any which could possibly be made.

A replica of a very beautiful statue of Dr. Gallaudet, by D. C. French, marks the place where the National College and the Kendall School for the Deaf at Washington, D. C., makes its exhibit. The founder of the America system of teaching deaf mutes is shown with his arm thrown with fatherly care around a little girl, his first pupil. From the west are specimens of work by the deaf pupils of the Nebraska State School, in which the wood carving is quite remarkable. Sets of wooden dumb-bells are shown, each of which is composed of several colored woods put together, turned, and polished with great skill. Hammered

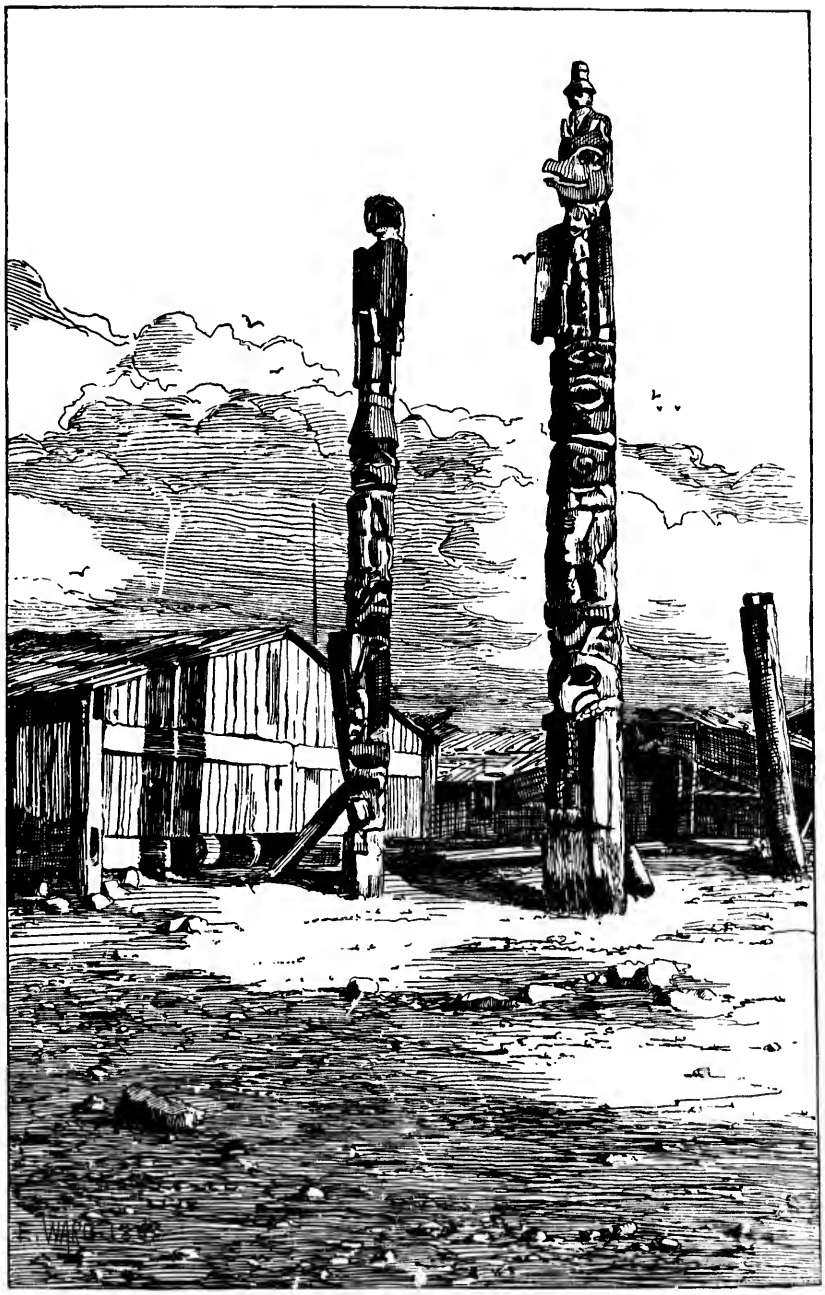
brass occupies a similar position in the work of the boys of the Minnesota Training School for the Feeble-minded. One doubts the accuracy of the name of the institution after seeing the brass paneled fireplace in its exhibit. Brooms, brushes, mattresses, and rag carpets are the staple exhibits of the Pennsylvania Working Home for Blind Men, and show very conclusively that a man may be none the less a good workman for having had the misfortune to lose his eyesight. Selim H. Peabody has earned the title of professor, as he has been a teacher for forty years, and his varied experiences in educational matters was recognized when he was appointed chief of the department of liberal arts, September 1, 1891. He comes from Vermont, where he was born in 1830. After receiving a common school education in Vermont, he entered the Boston Latin School, and afterward graduated from the University of Vermont in 1851. In 1852 he taught high school in Vermont. In 1854 he went to Philadelphia as professor of mathematical engineering in the Polytechnic College. He came west in 1857, and in 1860 became superintendent of schools in Fond du Lac, Wis. In 1865 Professor Peabody came to Chicago as professor of physics in the high schools. He was appointed professor of engineering and physics in the Massachusetts Agricultural College in 1871, and in 1878 came to the University of Illinois at Champaign as professor of mechanical engineering. Two years later he was elected president of the university, in which position he remained until he took up his present duties in September, 1891. He organized the department of liberal arts, and has marked the lines upon which the educational exhibits will be shown at the Fair. Professor Peabody is a member of many American and European educational and scientific societies. He has written many text books and works upon astronomy and entomology. He is one of the editors of the *International Encyclopedia*, and is now President of the Chicago Academy of Science.

CHIEF PEABODY.

On the afternoon of the 24th of June Chiefs Allison and Peabody arranged what they were pleased to term a "trip around the world." This trip had been so planned that a procession of invited ones should see bits of the handiwork and educational methods of all the civilized peoples of the world. There were several hundred "excursionists" present at the offices of the two chiefs when it was time to start. Chief Peabody's party moved around the gallery to join the rest at Chief Allison's headquarters, and then as the band played a lively march they all started out on the momentous tour. It took two hours to make this circle of the globe and it was time extremely well spent. Every section in the building did something to welcome the tourists and the great hall was decorated from one end to the other.

The flags of all nations were swung out in front of the offices, and Columbia avenue, the main thoroughfare of this new world, was decorated on both sides with evergreen trees, palms and dainty flowers. The clock tower, the center of the earth, was surrounded by a little forest of palm trees and other decorative plants. Band concerts that attracted and held a great number of people were given there throughout the day. Chiefs Allison and Peabody received many compliments from their delighted guests on the excellence of the exhibits and the fine arrangement of their great show.

EXHIBIT OF BUSH, SIMMONS & CO., WHOLESALE HATTERS, CHICAGO.



TOTEM POLES.

CHAPTER IV.

DEPARTMENT OF ETHNOLOGY.

Anthropology: "Man and His Works"—What May be Seen at the Ethnological Building—The Mound Builders of Ohio—Splendid Collection from Mexico, Costa Rica and New South Wales—Views of Plans and Models of Prehistoric Men—Prehistoric Architectural Monuments and Habitations—Natural and Artificial Cave Dwellings—Lacustrine Dwellings—Sweat Houses, Totem Posts, Cliff Dwellings and Skin Lodges—Implements of War and the Chase—Furniture and Clothing of Aboriginal, Uncivilized and Partly Civilized Races—Objects of Spiritual Significance and Veneration—Representation of Deities—Appliances of Worship—Historic Archæology—Objects Illustrating the Progress of Nations—Models and Representations of Ancient Vessels—Clothing and Adornment—Apparatus for Making Clothing and Ornaments—Articles Used in Cooking and Eating—Models and Representation of Ancient Buildings—Cities and Monuments of the Historic Period Anterior to the Discovery of America—Objects Illustrating Generally the Progress of the Amelioration of the Conditions of Life and Labor—The Evolution of Labor-Saving Machines and Implements—Portraits, Busts and Statues of Great Inventors and Others who have Contributed Largely to the Progress of Civilization and the Well-being of Man—Eulalia Entertained by the Quackahl Indians—Sketch of Professor Putnam.

THERE is a certain structure that is not so often visited as many of the others; and yet it is one whose contents challenge the admiration of students of antiques and others of scholarly attainments. Over the portal of this building are the words "Anthropology—Man and his Works," which means that much which is ethnological end anthropological may be seen within. This building is 415 feet long and 225 feet wide, and besides the general archæological and ethnological exhibits contains the exhibits of the Bureau of Charities and Corrections and that of the Bureau of Hygiene and Sanitation. Professor Putnam is at the head of this department. He is professor of American archæology and ethnology at Harvard university, and is a famous scientist.

The Ethnological Building is the result of an overcrowding of the Manufactures and Liberal Arts Building. That mammoth structure, which many have pronounced too large, is exactly the one of all the others that was found too small. Consequently, at the eleventh hour it was decided that ethnology must go. A new building was planned, but not for ethnology alone. The sections on charities and corrections and the section on hygiene and sanitation of the Department of Liberal Arts were sent along with it. But the uses of the new building were still further enlarged until there were housed in it archæology, natural history and geology as well.

As one enters the building by the middle entrance at the north end he sees private collections of contemporaneous Indian implements, arms, dress and household articles, one collection being nearly like another, at least to casual observers. What strikes the attention first and excites the greatest interest is the model of the Indian village of Skedegats, on Queen Charlotte's Island, in British Columbia. This collection was secured by Chief Putnam, and is in charge of James Deans, an aged Scotchman, for thirty years a resident of the islands. The village consists of a row of cottages, standing on an exhibition platform three feet high and about fifty feet long, with a screen behind it, on which is painted a panoramic view of the country.

These cottage models are about two feet square and high and decorated in front with the curiously and hideously carved and painted totem poles peculiar to the Heidah tribe. Mr. Deans, who, though an uneducated man, is an adept in this Indian lore, says that the Heidah habitations have been like this from prehistoric times. They appear to be built of plank, but are, in fact, constructed of river slabs. One peculiarity of the ornamentation is the frightful carvings of dragon heads protruding from the eaves; and as if to confound the anthropologist it is said that they are almost the counterpart of similar ornaments on some of the houses of the Japanese.

Farther on, and to the right, the visitor steps into the inclosure of New South Wales exhibit, for which great praise is given Executive Commissioner Renwick, by whose exertions it was collected. It is necessary to see the collection, however, in order to fully enjoy or understand it. The exhibits relate not only to New South Wales, but to Australia, the New Hebrides, the Solomon Islands, New Guinea, New Britain and Marquis Island. They consist in part of an immense display of enlarged photographs, illustrating the appearance and manners and customs of the aborigines, and in part of an almost endless assortment of their weapons of warfare and of the chase, the garments, rude manufactures and household implements. Among them are boomerangs, spears, bow and arrows, shields, nets, stone axes, costumes, fans and shell money. A person with the slighest interest in these races would be entertained here for hours.

Farther down one comes to the space assigned to Prof. Culin for his folklore exhibit. Under this head comes primitive religions, customs and games, though in fact the display is confined to primitive games. These are shown in horizontal showcases stretching entirely across the building. To make the collection Prof. Culin has ransacked every country on the globe and every age of the world back to prehistoric times. Singular to relate, while he has dice that were used for gambling at least as early as 500 B. C. he has never been able to collect a set of the cards with which twenty-five years ago the people of this country played the game of Dr. Busby. One of the neatest stories in his showcase is the evolution of playing-cards from dice, and of dice from the knuckle-bones of a sheep.

In the middle aisle, not far from Prof. Culin's section, one may see some intensely interesting material relating to the mound builders. This consists of four raised maps, about 6x8 feet in size each, illustrating the Indian mound region of Ohio. They are in fact minute copies, including not only topography, but trees,

grass, roads and scenery. The first relates to the famous Serpent Mound in Adams County, purchased by the Peabody Museum; the second to the Hopewell group of mounds in Ross County; the third to the Turner group in Clermont County and the fourth to Fort Hill in Highland County. One look at these beautiful maps shows that no pictures have ever done this subject justice.

Just east of these maps is appropriately displayed an immense collection of relics of the mound builders, secured under the direction of Chief Putnam, by W. K. Moorehead of Xenia, O., who is also now in charge of it. A small portion of this collection was taken from mounds and graves at Fort Ancient in Warren County, and the remainder from one of the twenty-three mounds in the Hopewell group in Ross County. This mound is the second largest in the State, and yielded an immense quantity of archæological material. some of which resembles other relics from similar sources, and some of which possesses striking peculiarities.

Among these are pecks of pearls perforated as if for necklaces. Some of these are in good condition and others are partly calcined by fire. The damaged specimens were found on hollow altars of burned clay that were possibly used as crematories for the dead. There were also found large quantities of sharks' teeth and sea shells. That these three articles should be found so far from the sea and in such large quantities is considered rather strange, especially as they are not old enough to be connected with geologic changes.

There were also found in this mound and these clay altars bushels of copper implements and ornaments bearing evidence of being hammered out cold. The metal is greatly oxydized, and though a little hardened by the hammering, is devoid of temper. Most of the ornaments are stencil-like, and have been cut out of sheet copper. Some are in the form of easily recognized species of fish, and some, strange to say, in the form of the Swassticka cross, which is also found among ancient human relics in France and other parts of Europe.

Mr. Moorhead exhumed 298 skeletons or parts of skeletons, but only two that were complete. One of these was found in a Warren County mound and one in a grave, and the skulls are so different that they are believed to belong to two different races of men. The stone grave in which one was found was brought with it, and is a thrilling and unique relic of this mysterious people. As to the age of these relics Mr. Moorhead says that all that is certain is that they are over 400 years old. This much is proved by the remains of two separate forests found over them, each of these forests, according to botanists, representing a period of 200 years.

A little farther to the south is the inclosure of the Mexican exhibit. It would make a long chapter to bestow a passing word on every object of interest connected with ancient Mexico and its inhabitants here exhibited. But the chief among them are four "archæological reconstructions of the city of Mexico," from five to ten feet square. The first and largest represents the Temple of Huitzilopochtli, which stood on a spot now fully identified and on which the ancient inhabitants offered human sacrifices. The principal stone on which the victims were laid is still preserved in the Mexican National Museum.

The second reproduction represents with thrilling minuteness the triumphal entrance of Cortes into the city. Even the troops on each side and Cortes himself, as well as the buildings of the city, are distinctly seen. The third reproduction represents the capture of Cuauhtemoc, at what is now called the Clergyman's Bridge, by which the deathblow was given to the Empire of the Tenochas. The fourth reproduction represents Cortes receiving his prisoner Cuauhtemoc, who in tears implored the conqueror to take his poniard and slay him. The Mexican Commissioner has prepared an interesting descriptive catalogue in Spanish and English of this part of the exhibit.

The Costa Rica exhibit adjoins the Mexican inclosure on the east. The Commissioner, Anastasio Alfaro, says that Costa Rica sent 7,000 pieces to Madrid and sends only 3,000 to Chicago. He thinks the display at Madrid was five times as large as this one. He had many large idols, altars, and ornamental stones which he did not dare to bring to this city, but sent back to Costa Rica, simply because there was no room to display them.

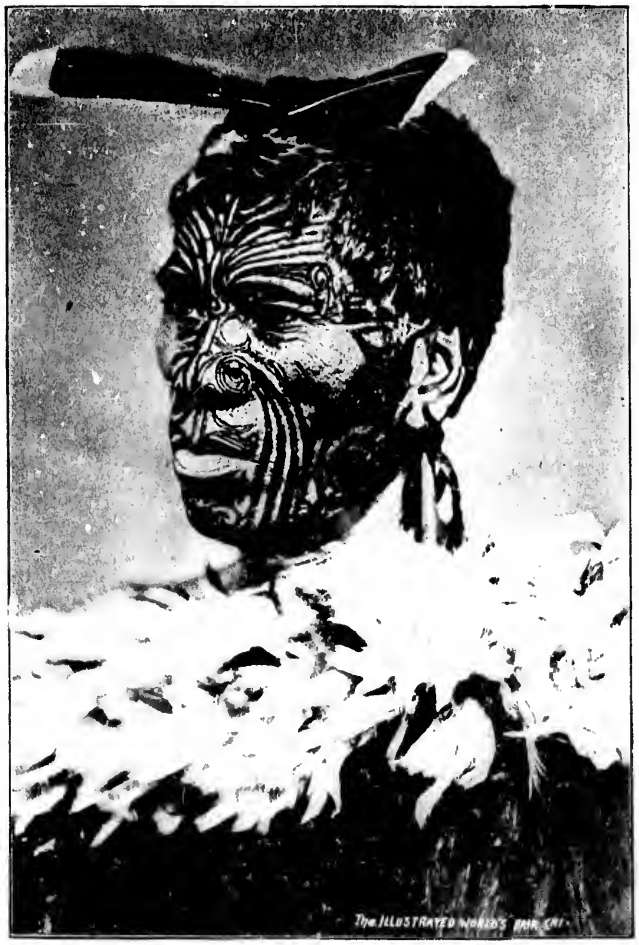
On the other hand, the 3,000 pieces in the present exhibit are all original, real, and there is not a reproduction among them. They consist almost entirely of pottery, but there are also some singular carved stones, presumably ornamental. One is like a center table, 3 feet high, and though made of flint-like stone is hollowed and carved like a Chinese puzzle. What instruments were used in such work is unknown, as the only metals found are gold and copper. These are in the shape of jewelry. There are some photographs of the material sent back from Madrid to Costa Rica.

With all of these treasures of science on the main floor of the building it will still be considered by many learned visitors that the greatest attractions are in the gallery. The south gallery from wall to wall, is entirely taken up with the immense and indescribably fine exhibit of Ward's Natural Science establishment of Rochester, N. Y. This wonderful collection covers, and covers well, the entire fields of geology, paleontology, and natural history. Here are all the fossils, from the ingneous rocks up; stuffed specimens of all animal life, from the bacillus up to the great Elephas Primigenus, 16½ feet high, and all skeletons from that of a humming bird up to that of a whale. The gallery looks like an epitome of the universe.

Any student of paleontology, geology, or natural history who has any difficulties to solve, and who can make his way to Chicago, now enjoys the opportunities of a lifetime. It is safe to say that he will make greater progress in his studies with this immense museum before him in one week than he would in a lifetime deprived of such advantages. It will be a comfort to students, whether they can visit the college here or not, to know that there is a strong probability that it may become the property of the University of Chicago. It is valued at $150,000.

The galleries, however, contain many attractive exhibits besides the Ward collection. In the west gallery are Boehm's collection of birds, the Maine exhibit of stuffed mammals, a singular collection of Ohio antiquities relating more particularly to the region of Marietta, and Chittenden's collection of North American

prehistoric Indian and Esquimau relics. In the east gallery are the fine natural history collection of the Albany, N. Y. Museum, Lattin's unique exhibit of stuffed birds framed and covered with convex glass, and the singularly beautiful collection of the birds and mammals of Pennsylvania, stuffed and arranged in an artificial forest. Returning to the lower floor the visitor may see many wonders which do not belong to the department of Ethnology nor any of its related departments. The southwest corner of the floor is occupied with the noble exhibits of the section of Charities and Corrections of the Liberal Arts Department. Here are illustrated by a hundred of the penal and charitable institutions of the country the most advanced and humane thought of the age concerning the insane, the deaf and dumb, the blind, and the criminal. From the wonderful appliances of the John Hopkins Hospital to the oaken chair of the Auburn Penitentiary, in which Kemmler was electrocuted, everybody speaks of a growing gentleness and goodness in human nature. It was probably only accidental that these symbols of mercy and benevolence were placed so close to the Mexican altar on which human victims were butchered with flint knives 300 years ago. The following is the inscription over the exhibit of the Battle Creek Sanitarium:



CHIEF WANNOCK.

"This institution was founded in the year 1866 by an association of philanthropical persons whose purpose was the establishment of a self-supporting chari-

table institution at which both rich and poor might receive the benefit of all the curative resources afforded by the modern science of rational medicine. More than 50,000 patients have received treatment at this institution, nearly one-fourth of whom have been the recipients of its charity. The institution is under the supervision of a Medical Missionary and Benevolent Association, which operates and supports several lines of medical missionary work in Chicago and elsewhere; the education and maintenance of missionary physicians in the United States and foreign countries; a large orphanage: a home for friendless aged persons; and several branch sanitariums and hospitals organized on the same plan."

In the southeast corner of the building is the hardly less advanced and humane exhibit of Hygiene and Sanitation, forming another section of the Liberal Arts Department. Here is Illustrated the latest thought of the world concerning filters, ventilation, bathing, disinfectants, furnaces, gymnastics, and vaccination. By far the greatest things in these lines are in the exhibits of the Paris exhibitors, which are of themselves worth a journey to Chicago to see, study, and admire.

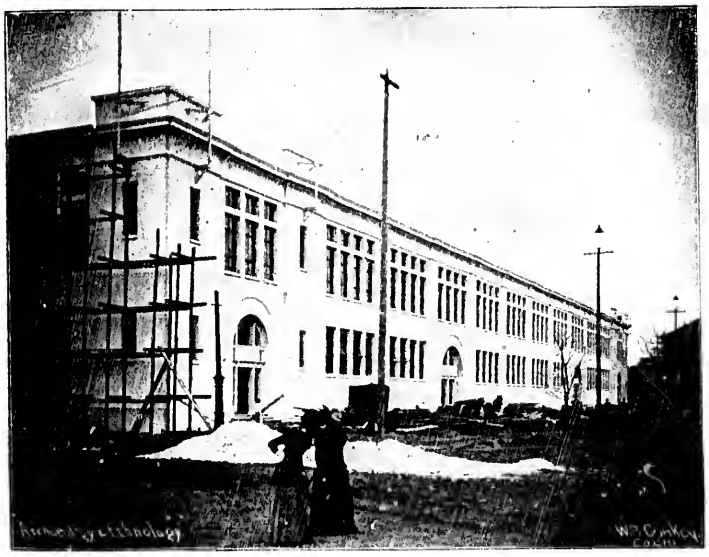
It may seem singular, but the greatest thing in the building, and one of the greatest things on the grounds, is an exhibit which has been thrust into this quarter of the room without belonging to the building at all. This is a display of anatomical models by A. Luer of Paris. If the physicians of Chicago knew what was on exhibition here there would be thousands of them crowded around this exhibit every day. Every part of the human body is represented in its natural colors and so that it can be taken apart to the last filament. Moreover, everything is on an exaggerated scale. The model of the human hand is two feet in length and the model of the human ear as large as a market basket.

There are also models of other kinds of life, for the study of comparative anatomy. There is a turkey of natural size, and a beetle as big as the turkey, and both can be dissected down to atoms. There is a hen's egg as large as a watermelon, showing the evolution of the chick, and a model of a horse which comes apart into 140 pieces, each of which comes apart into about fifty more, the price of the whole model being $5,000. Nothing in all Jackson Park is more wonderful, beautiful, and profitable than this exhibit.

Among the many objects that hold the student are the views of plans and models of prehistoric men. Prehistoric architectural monuments and habitations, natural and artificial cave dwellings, lacustrine dwellings, sweat houses, cliff dwellings and skin lodges, implements of war and the chase, furniture and clothing of aboriginal, uncivilized and partly civilized races. Objects of spiritual significance and veneration, representations of deities, appliances of worship, historic archaeology, objects illustrating the progress of the nations. Models and representations of ancient vessels, clothing and adornment, apparatus for making clothing and ornaments, articles used in cooking and eating, models and representations of ancient buildings, cities and monuments of the historic period anterior the discovery of America, objects illustrating generally the progress of the amelioration of the condition of life and labor, the evolution of labor-saving machines and implements,

portraits, busts and statues of great inventors and others who have contributed largely to the progress of civilization and the well-being of man.

In the immediate neighborhood of the Ethnological Building are a reproduction of some noted ruins of Yucatan, an imitation of cliff dwellings, and some representatives from some aboriginal nations of the south west. Eulalie spent an hour among these Indians to her great amusement. Being informed that the Quackahls were preparing an entertainment for her, the princess seated herself in a rolling chair that had been covered with a gaudy red Navajo blanket and waited with an expectant face for the performance to begin. The dull thumping of a drum on the outside told the approach of Chief Wannock and his tribe. The drummer came in backward, and while he battered away at his queer shaped instrument, he set up a song. He was accompanied by the other Indians as they came in. For about five minutes the Quackahls marched in a circle, beating time with their bare feet in the sand to the wild song. The song ceased and three or four men crowded around a small square board and began beating a lively tattoo on it with bones. A woman wrapped in a gaily embroidered blanket, and with her long black hair floating in the air, began circling around in front of the princess. The drum beat louder and the rattle of the bones on the board quickened until the woman danced up to the crowd and shook a lot of fine feathers from her hair on the board. Then the princess began laughing, for half a dozen of the Quackahls were rolling on the sand in front of her and scratching themselves as though infested with 10,000 fleas. She had never seen such an entertainment before. Frederic Ward Putnam, Professor of American Archæology and Ethnology in Harvard University and curator of the Peabody Museum, Cambridge, Mass., was appointed in February, 1891, as chief of the Department of Ethnology of the World's Columbian Exposition. Professor Putnam was born in Salem, Mass., and is a direct descendant from John Putnam, one of the earliest settlers of Salem, thus being



ANTHROPOLOGICAL BUILDING.

connected with the best families of Old and New England. Although for many years he has been especially devoted to archæology as a life work, and has conducted many explorations in various parts of South America, he has a wide practical knowledge of all the natural sciences, having evinced an aptness for this line of study very early in life. At the age of 16 he entered the Lawrence Scientific School of Harvard University, and for several years was the special student and assistant of the famous Louis Agassiz. The same year he was elected member of the Boston Society of Natural History, and he has since held the position of president of the society for three consecutive years. At the same time he was elected member of the American Association for the Advancement of Science, and for twenty-one years he has filled the position of permanent secretary of that association. He has held many honorable positions; has been vice-president of the Essex Institute, in Salem, Mass., for many years. He was the first director of the Peabody Academy of Science; has been president of the American Folk-lore Society, and is now president of the Boston Association of Folk-lore. He is a fellow of the National Academy of Science and of all the principal scientific and historical societies of America, and of the anthropological societies of Paris, London and Brussels. He has given freely of his scientific knowledge to the world; has served his scientific knowledge to the world; has served his native State for seven years as State Commissioner of Fisheries; and has contributed over 300 papers to scientific literature.

To comprehend the scope of this department it is necessary to digest the statement that therein is shown the collections from every famous museum of the world, and that no less than seventy expeditions have scoured the earth to obtain data for this exhibit. It is one of the most interesting features of the Fair both as regards the curiosities and relics it contains and for the comparative object lesson it presents. All around it are the evidences of the latest steps taken in the world's advancement, while inside the building are the objects that show how the rude forefathers of a thousand tribes delved, dug, and builded.

Brazil, Canada, England, France, Greece, Honduras, Mexico, Argentine Republic, New South Wales, Paraguay, Bolivia, Peru, Chile, Borneo, Spain, Russia, Costa Rica, Patagonia, and many other foreign countries have largely contributed, and many interesting tribes of living Indians are quartered near the building. Egyptian antiquities are shown and nearly all of the States have sent collections. It is the greatest museum ever collected and is a spot of untiring interest.

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CHAPTER V.

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The Great Resort of Farmers—A [illegible] Structure—The Spirit of Agriculture Gra[illegible]ified—Blandishments of Field an[illegible]—Bewildering Avenues of Extremely Unique and Ornamental Pavilions—All the Indus[illegible]squely Shown—Nineteen Acres of Exhibits—Novel Exhibit of the Association of Ameri[illegible]ental Stations and Agricultural Colleges—All the Essential Products Derived from Agri[illegible]are Attractively Shown in the Galleries—Grasses and Grains Varied in Colors and Beautifully Blended—The Exhibit of Ontario—The Monster Cheese Weighs Eleven Tons—It is the Largest Ever Made—Little Cheeses That Only Weigh One Thousand Pounds Each—Elaborate State Exhibits—Burdett-Coutts' Stable Exhibits—Many Things from Foreign Lands—Mowers, Harvesters, Thrashers and Plows by the Acre—Sketch of Chief Buchanan—Live Stock Exhibit—Dog Shows and Carrier Pigeon Flights—Bovine Blue Bloods.

ALL mankind is interested in the products of the field, not only the farmer, who produces, but the consumer, which is the world—and this accounts for the vast crowds that throng the beautiful Agricultural Building daily. The main building is 800 feet long by 500 wide, and cost $800,000. It covers 13 acres, including its 3 8-10 acres of annex, quite as large as some little farms "well tilled." There has never been and probably will not be again for twenty years in this country such an object lesson for the agriculturists and all other bread winners who live from the products of the husbandman. In style of architecture the Agricultural Building is notably bold and classic. It is located on the main basin of the lagoon, and as its north facade faces the administration court, the outlook from that point is marvelously grand. As regards ornamentations the building has many mural decorations by celebrated painters depicting the spirit of agriculture, and the staff work and statuary of the structure is in keeping with its interior magnificence.

Twenty-nine States and Territories have pavilions on the main floor, as have most of the foreign countries where agriculture is a feature. These pavilions all display in their decorations devices pertaining to field products, many of which are extremely ornamental. Quite a number of the pavilions cost between $8,000 and $20,000 to erect. In nearly all of the State exhibits the displays were collected by State agricultural agents, and are fully descriptive in character of the soil products of all parts of the country. Pennsylvania, Ohio, Illinois, New York, Missouri, Iowa, Wisconsin, Michigan, the Dakotas, Nebraska, California and Indiana make especially fine exhibits in this department.

The scene upon the floor of the building is particularly beautiful as the different colored grasses and grains that form the ornamentations are varied in color and

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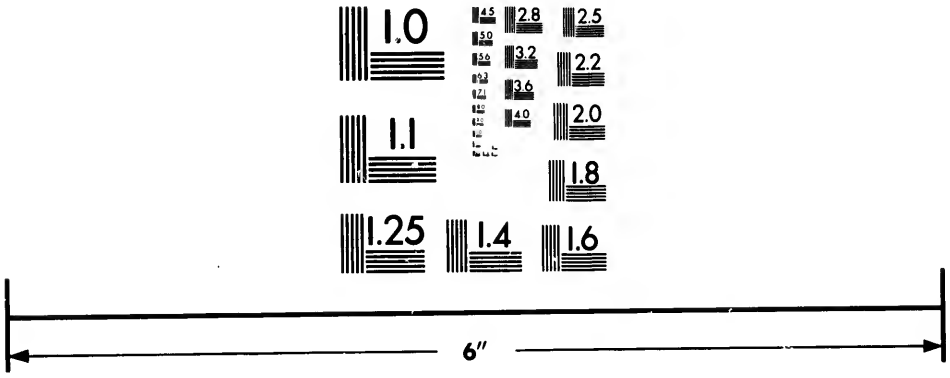

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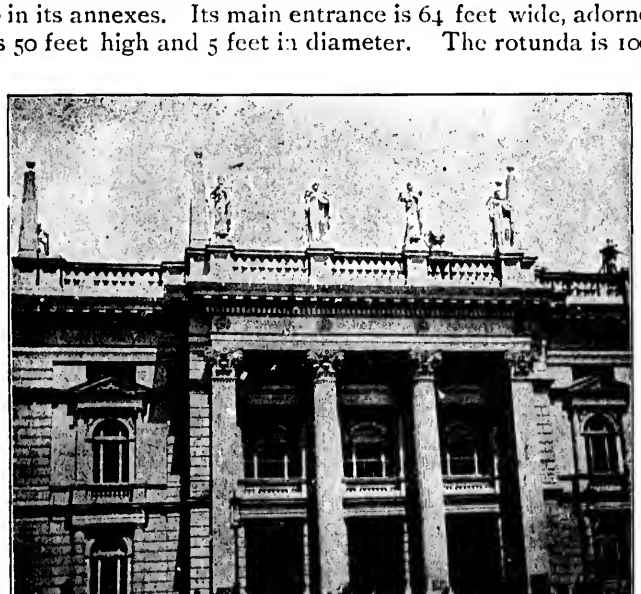
striking in their contrasts. On the floors of the annexes are shown nearly every type of agricultural implement in existence. The apiary department, the exhibit of dairy products, and the exhibit of the wool industry are also complete and striking. A novel exhibit is that prepared by the Association of American Experimental Stations and Agricultural Colleges. This display occupies 8,000 square feet and represents the entire work of agricultural experimental stations such as are supported by the National government and the different State governments. The tobacco industry, the sugar, confectionery, canned goods, soap, oils, chocolate, and innumerable other industries having their essential products derived from agriculture are shown in the galleries of this building.

It is conceded by many that the Agricultural Building is one of the handsomest—as well as one of the largest—of the many imposing structures on the grounds and is especially rich in its outlines and in its ornamentations. Its height of cornice is 65 feet and of its dome 130 feet. In its construction there were used 2,000,000 pounds of structual iron and 9,500,000 feet of lumber, including the 2,000,000 in its annexes. Its main entrance is 64 feet wide, adorned with Corinthian pillars 50 feet high and 5 feet in diameter. The rotunda is 100 feet in diameter, and is surmounted by a great glass dome. It is worthy of note in this connection that agriculture, and its kindred interests of forestry, dairy and live stock, has exhibition space under roof of 69 acres, the buildings costing $1,218,000. The Agricultural Building, the Live Stock, Dairy and Forestry buildings are all under the direction of Hon. W. I. Buchanan, of Iowa, the Chief of Agriculture, who is well regarded as among the foremost executive minds of the Exposition chiefs.



MUSIC HALL.

Ontario (Canada) has an exhibit that is worthy the good name of our illustrious neighbor. It may be that the summers of Canada are somewhat shorter than those of that section of the United States adjoining it. If so, then the hardy husbandman of the Dominion "makes hay while the sun shines," and does a great

deal besides. Ontario seedsmen have acquired such a reputation that they are known the world over. Ontario peas, especially, are sold by all the big seedsmen of the United States.

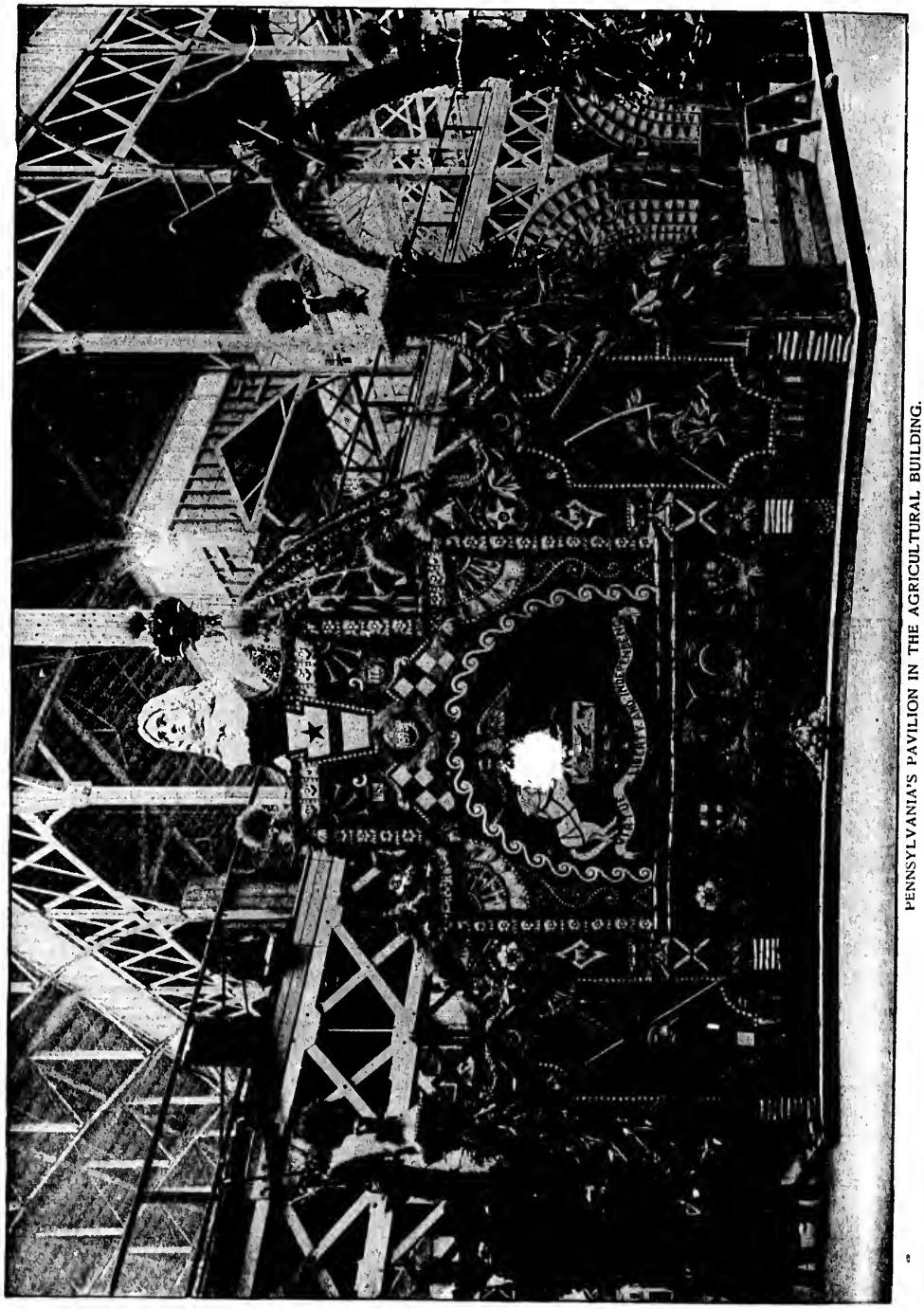
Ontario farmers do not confine themselves to peas, however. Their pavilion —a fine one, too—is tricked out with all manner of grains. Some people think Ontario cannot raise corn, but there is some as fine corn in its display as may be found even in the Iowa section.

The grain show has a triple classification; there are jars of the threshed grain, wheat, barley, rye, oats, about 200 jars of each; there is a great variety of grain in the straw artistically arranged. Then there are sheaves bound to show how things grow up north, timothy that is six feet high and wheat pretty nearly as tall.

But the pride of the Ontario is not in the Ontario section at all. The big cheese, the biggest cheese of all, is right across the aisle to the west. It is an Ontario cheese, though made at the dominion experimental station in Perth, Lanark county. A good deal has been said about this cheese, how much it weighs, and how it broke the floor down while it was being put in place. Everybody ought to know by this time that it weighs over eleven tons, but it is not so easy to understand just how big a thing eleven tons of cheese all in one cake may be. Ten thousand cows collaborated on that cheese. Each gave one day's milking. The total weight of the milk used was 207,200 pounds. The cheese is 6 feet high and 28 feet in circumference. It is worth between $4,000 and $5,000. The man who made this cheese, J. A. Ruddick, of Perth, is exceedingly proud of it. It is his masterpiece. Mr. Ruddick is a slender young man and exceedingly modest withal. He watches with great solicitude over this pride of Ontario. About once in ten days he carefully turns it over. Of course he does not do all this himself, for the cheese is a trifle bulky. It is incased in a vat of riveted steel boiler plate, and this boiler plate rides on a heavy wide-wheeled truck. There are strong oak uprights, securely braced, on this truck, and between these the huge cheese box is suspended in wrought-iron stirrups. It may be revolved in these by a system of screws. The reason why it has to be turned is because it is a young cheese and is still "curing."

Mr. Ruddick says twelve of the biggest cheese foundries in Ontario contributed the curds to make the cheese. Each factory pressed its contribution slightly, loaded it into cloth-lined milk cans and rushed it by train to Perth. There the cans were dumped into the boiler plate vat, the curds broken up, and then the pressure of six giant jack screws was put on through heavy oak frame work.

Everybody who goes into the Agricultural Building stops to look at this monumental cheese; on one side of it is a high pyramid of Canadian bottled beer, and not far away is an exhibit of crackers—an highly enticing combination. On one occasion an aged person with gray-colored hair, an abundance of beaver hat, and new store clothes stopped to take a look at this monster cheese. He appeared as if he might have come from Kokomo or Ypsilanti, or some other such place. He walked carefully all around the cheese, spelled out the placard on it, spat vigorously, and said:



PENNSYLVANIA'S PAVILION IN THE AGRICULTURAL BUILDING.

"Gosh! Ef the skippers ever get into that thar cheese they'll grow as big as rabbits."

But this is not the only Canadian cheese in sight. It is flanked all about by big and little cheeses. There are six of them that weigh 1,000 pounds each. There are cheeses from Quebec, Ontario, and the maritime provinces. Canada beats the world on cheese. "Cheese it" is not a slang expression in Canada.

In the classification adopted by the Exposition, Agriculture, or rather the Agriculture Hall, is made to include food-products as well as the plain outgrowth of the soil. To distinguish between the two, the former have been relegated to the gallery and the latter occupy the floor. One of the handsomest show-cases in the Agricultural Building at present is that brought from England for Crosse & Blackwell, the well-known preserve and jam manufacturers. It is made of solid mahogany, without an inch of veneer, with plate-glass windows backed by mirrors. The cornice of the case is made of embossed leather, and is surmounted by an ornate metal railing.

Directly opposite, occupying another section of the center circle of the building is Iowa's miniature corn palace. This pavilion is probably the prettiest on the main floor of the building. It is located almost in the center of the building on the main aisle running east and west and directly across from the Illinois pavilion. Its architectural design does not belong to any particular school, but its decorative features are purely Iowan. Grasses and corn ears have been used profusely. Classical figures have been worked out with these materials by the commissioners and the tout ensemble of the work looks dainty as well as picturesque. The grasses used include oats, wheat, rye, blue grass, corn stalks, and leaves, etc. Each of the four pyramids at the corners is elaborately set off with jars containing seeds and grains, the agrticultural products of the state.

The Illinois pavilion is striking in the originality displayed in the use of the materials of which it is composed. Corn cobs are used effectively in the entrance way, which are set off by tassels of millet. Within, cases, showing the cereals of the State, and plants in bloom are displayed, with other features of interest. In all 125 different varieties of grains and grasses are shown. A register is kept, which will be preserved, with its list of names of people of all countries.

The Iowa exhibit differs from all others in that the red color of corn cobs is employed to give a distinctive appearance to the pavilion. The decoration is ornate and elaborate. Grains are shown everywhere, and the soil that produced them is exhibited in long glass columns.

The Minnesota and Wisconsin exhibits, like most of the others, display cereals in profusion. The Minnesota pavilion has a series of arches decorated with wheat; while long spears of grain are exhibited in cases. In Wisconsin's booth grains in bottles are shown.

Pennsylvania's exhibit is beautifully displayed. A feature of interest is a chair wholly composed of corn fodder, there being 3,000 pieces in the chair. There is also a Liberty Bell made of products of the field, and a fire-place decorated with

PENNSYLVANIA'S PAVILION IN THE AGRICULTURAL BUILDING.

IOWA'S PAVILION IN AGRICULTURAL BUILDING.

corn-fodder. An interesting feature of this exhibit is that of the silk industry of the State.

The Connecticut exhibit is largely of cereals, tastefully displayed in a booth of the old colonial type of architecture. An interesting feature is an old fashioned flax break, mortar and spinning wheel. In the center of the platform is a tent made of ears of corn. The tobacco exhibit of Connecticut is in the gallery of the building.

Michigan has a splendid exhibit, figures dressed in grains being one of the prominent features. Nebraska's specialty is beet sugar, shown to splendid advantage in great glass columns, which are also used to exhibit cereals. Kentucky's exhibit is noticeable for the display of tobacco, which is worked into the decorative schemes of the exterior and interior of the building. The long gray moss at the South gives a peculiar effect to the whole. Utah tastefully displays grains and bales of hay and straw. The State of Washington's exhibit is made prominent by the use of sacks of flour. North Dakota displays some, at least, of her forty-six kinds of spring wheat and 390 varieties of grasses. New Jersey's pavilion, beautiful in white and gold, contains corn, sweet potatoes and other things in profusion, A plow of 1790 is shown, and other old-time farming implements. A booth at the north end of the pavilion is hung with curtains of tree moss, and decorated with acorns, beans, etc. A figure of the farmer and minute man of 1776, flint-lock in hand, guards the entrance.

The Ohio pavilion is of simple lines but rare beauty. It is in the form of a Grecian temple, the columns being of glass filled with grains, etc

In the center of the Missouri pavilion is a fantastic pyramid, capped by a globe showing the continents in grains. A case of birds is placed in a booth. The tobacco exhibit is very fine.

Colorado attractively displays her grains and grasses in frames, making investigation easy. Landscapes in oils are also exhibited.

Oregon's pavilion, fashioned like a Grecian temple, contains a fine collection of grains. Kansas makes a display in which corn predominates, although sheaves of wheat are to be seen. Cereals are shown in bottles. The Wyoming pavilion is reached through a beautiful arched entrance in white and gold. Within is to be seen a splendid collection of the products of the soil.

South Dakota makes a splendid exhibit. The large pavilion is reached through arches inclosing a porch of corn and wheat, resting on columns formed from tree trunks. Some of these have sent forth fresh sprouts, the effect being very fine. In 1892 South Dakota produced 9,265,000 bushels of wheat, an average of 100 bushels for each man, woman and child in the State. New Mexico's exhibit is contained within a fine pavilion, decorated in white and gold. Native woods are shown, among other things, and grains. New York covers a large space with specimens of products of its soil. Grains, hops, and maple syrup are artistically displayed.

The Louisiana pavilion is unique, being divided into three distinct departments. One, of Japanese design, is devoted to the display of rice. As rice was introduced into this country from Japan, it was thought the form of the pavilion

IOWA'S PAVILION IN AGRICULTURAL BUILDING.

should correspond to the architectural type of that country. Cotton is displayed in the central division of the pavilion, while cane and molasses and sugar are shown in the third division, which is patterned after an Egyptian model.

The West Virginia exhibit is chiefly of grains and grasses, corn being prominent. The Indiana exhibit is simple, but a fine showing of the resources of the State is made. California occupies a large space. Prominent in the exhibit are enormous beets, gourds, and potatoes and all the cereals.

Oklahoma makes a splendid showing for the youngest and smallest of all the States and Territories. Opened for settlement but four years ago, practically all grains raised elsewhere are now grown, wheat running sixty-two bushels to the acre, oats 125, and corn 70. Sixty cotton gins are now in operation in the territory. The display shows the products named and the tallest corn, broomcorn, sorghum and weeds grown anywhere. Milo-Maize from France and Kaffir-corn from South Africa are exhibited. The mistletoe is emblematic of Oklahoma, and, therefore it is exhibited. During the watermelon season of the Territory, Lymon Cone, who erected and has charge of the pavilion, cut melons free for the million.

This limited survey of a large field no more than prepares the way for those who would derive benefit from its study. In many of the exhibits showings are made by the respective agricultural colleges. Statistics are to be had in abundance and full explanations of methods.

North Carolina has an attractive exhibit of cotton, tobacco, and peanuts, Maine shows some fine potatoes. The Massachusetts exhibit is largely cereals. Not much is claimed for the soil, excepting when artificial fertilizers are used. Then, it is claimed. Massachusetts produces the greatest number of bushels of corn per acre of any of the states. A case of birds is shown, of varieties fatal to the gypsy moth, a pest on which the State spends $200,000 per year in efforts towards extermination. In another part of the main floor New South Wales men have built a court with arches of wool bales, which are neither small nor light, but very effective. A typical Australian wool-wagon stands near, half filled with bales. It is natural that the great wealth of the country should be thus well represented. In the French section are wonderfully real flowers made of candied blossoms, toothsome sugar plums, chocolate confections, and truffles, and mushrooms and paté de fois gras to tantalize the epicure. Up on the galleries, there are exhibits of interest to all, be he farmer or not. The entire west gallery is occupied by the brewery exhibit, while the east one has case upon case of honey. A monument of soap, a design of interest, is at the right, and an old mill and water wheel belonging to a flour exhibit, is at the left of the main aisle. Farther along is Maillard's colossal statue of Columbus in pure chocolate. From the central aisle

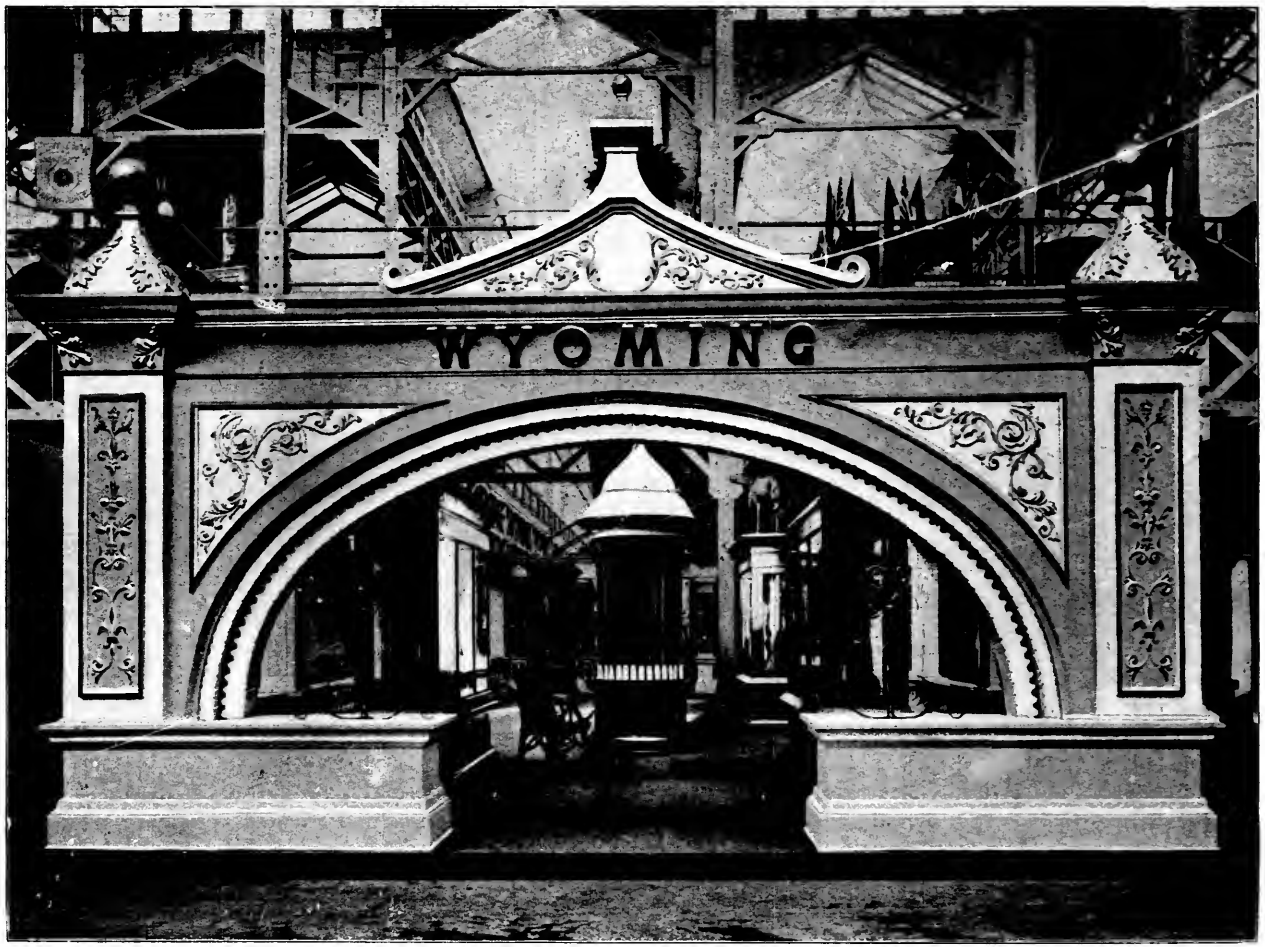
STATUARY.

the ornamentation of the entrance is best seen. Here art designs have been worked with colored corn over an immense space of the ceiling. Then come the extract booths, where great ten-foot bottles are the central feature.

It is said that one could almost satisfy himself with the many samples of eatables and drink that are gratuitously furnished the visitors to this building. Canned, desiccated and compressed soups served in tiny bullion cups, snowy biscuit and loaves made with this or that excellent baking powder or yeast, prepared table jellies, assorted crackers, maple sugar and butterine rivaling the pure dairy produce; breakfast oats served with cream and sugar by demure Quaker maids, spicy and piquant pickles, catsups, pressed beef, improved macaronis, and prepared puddings, cornstarch deserts and even chewing gum. Then of the liquids there are the condensed and evaporated milks and creams, beef extracts, cocoas and chocolates, compressed coffees, foreign teas, root drinks, cordials and liqueurs and every mineral water on hotel menu or to be found anywhere. In all there are nearly 300 exhibits of good things to be seen [and perhaps tasted] in the gallery alone to say nothing of the displays made by the various big packing companies of bacon, hams, salt pork, corned-beef, pickled meats and the interiors of refrigerator cars lined with quartered beef, loins of pork, spring lamb, mutton and fine veal.

Lovers of horses and anything pertaining to the saddle will find an interesting model in the center aisle. Mr. Burdett-Coutts, M. P., sent from England a model of his famous Brookfield stables, wherein he has bred more good horses than most men can remember. They have taken prizes in England and America, and placed their owner in the front rank of breeders. The stables, though formed by a natural process of accretion, one part being added to another as required, are as perfect as any to be found in England. On entering the gates into the front stable-yard, the stud groom's cottage can be seen, connected with which is the office where all the clerical work is done and the service registers, etc., are kept by the secretary. The buildings near this are devoted to the harness department, which is under the control of the "head breaksman." Passing through the gateway at the side of the office, the visitor arrives at the covered yard, loose boxes, main harness stables and messrooms for the employes. At the far end of the stables are the strawyard and stallion boxes. A little further on is the riding school. Beyond this are the granary, large sheds and the show grounds. The buildings represent stabling for about seventy-five horses.

One wing of the Agriculture Building has a display which will make all future county fairs seem dull and insignificant, and which has received compliments from the farmers, such as the art palace never received. There are clover hullers and threshing machines which are as handsome as pianos. The plows are nickel-plated and all the self-binders and mowing machines are drawn by wooden horses wearing silver harness. In this department you will meet the old gentleman who remembers the time when all grain had to be cradled and it took a good man to beat him. Many a day he swung a flail and thought his back would give out before night. After that they had a "thrashing" machine that you had to drive around all the time because the gearing was attached to the wheel. One of the



ENTRANCE TO WYOMING AGRICULTURAL EXHIBIT.

visitors said one day that a certain self-binder tied a good knot, but he thought it threw the bundles too far. "All I care for is a machine that won't get out of kelter," said the man with him. "On a hot day when the flies are bad and the hosses get restless I don't want to get down in the middle of a round and crawl through the insides of the blamed thing." Then they passed on to an array of cultivators with flowers painted on the double-trees. The first speaker said he liked a certain cultivator for straight rows, but he was afraid that it would cover up some of the second planting.

Principally an agricultural country, Argentine has a splendid exhibit in the Agricultural Building, consisting of cereals, fibrous plants, medical woods, wools and other like products.

It is certainly worth the while of every farmer to make a long visit to the implement annex to Agricultural Hall, where a greater part of the implement exhibit is made. We append a list of some of the more prominent firms making exhibits, together with the articles shown:

The Sandwich (Ill.) Enterprise Co.—New Champion force pumps, Enterprise pump standards, Aerating cistern pumps, New Champion spray pumps, Enterprising brass cylinders, Enterprise float valves, Enterprise pipe vises, Enterprise ratchet die stocks, Climax four-shovel riding cultivator, Rose disk riding cultivator, Climax walking cultivator, Enterprise walking cultivator, Eagle Claw walking cultivator, the Winner cotton planter, Dean ear corn slicer, Enterprise windmill with tanks and pumps in operation, Sandwich Perkins windmill and Air King steel windmills. Whitman Agricultural Co., St. Louis, Mo.—Belt power baling press, full circle steel horse baling press, New Departure horse baling press, Hercules hand power baling press, railway horse power, ten runner press grain drill, Magic feed mill, Monarch corn and cob mill, Young America corn and cob mill, St. Louis two-hole corn sheller, Derby two-hole corn sheller, Crown one-hole corn sheller, Tornado broadcast seed sower, Cahoon broadcast seed sower, Americus Senior cider mill, Americus Junior cider mill, horse power and drag saw complete. U.S. Wind Engine and Pump Co., Batavia, Ill.—A thirty-foot geared mill on 100-foot steel tower, operating a feed mill, corn sheller, two large pumps, feed cutter and wood saw. Also Halliday Standard, U.S. solid wheel, Vaneless and Gem steel windmills on short steel towers, and a complete exhibit of haying tools, pump stands, pump cylinders and accessories. Sattley Manufacturing Company, Springfield, Ill.—Six Sattley walking plows of different kinds, two Hummer three-wheeled plows, one regular cultivator, one Cyclone spring tooth cultivator, one Banner wood beam tongueless cultivator, one Victor combination beam cultivator, one New Imperial spring trip cultivator, one American parallel beam cultivator, one Sattley adjustable lever harrow, one Capital City automatic straw stacker. D. S. Morgan & Co., Brockport, N.Y.—Triumph No. 4 moving machine, Triumph No. 3 self-raking reaper, Triumph No. 8 steel frame binder, Morgan self-dump hay rake, Morgan lock lever spring tooth harrow, Morgan spading harrow, style "A," Morgan spading harrow style "B," Morgan horse grape hoe, Morgan spading cultivator. Skandia Plow Company, Rockford, Ill—.Farmers' choice corn planter, Dandy

ENTRANCE TO WYOMING AGRICULTURAL EXHIBIT.

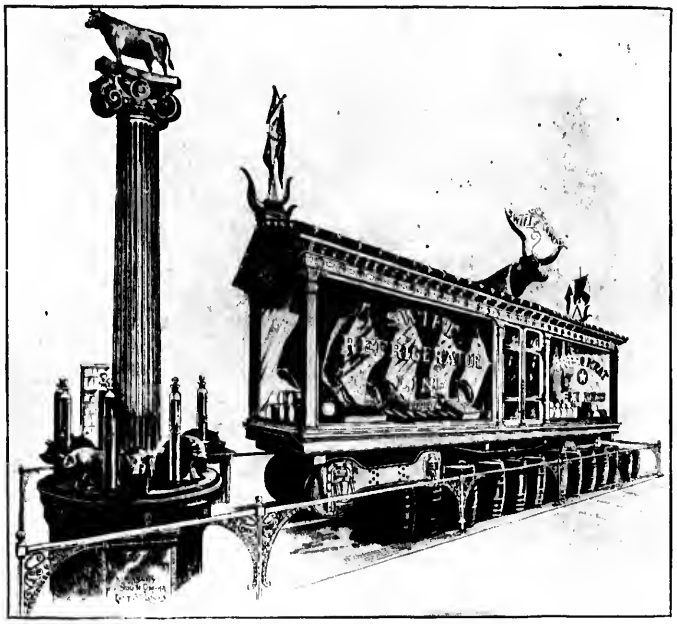
sulky, Globe cultivator, Monarch gang, Royal cultivator, S. B. combined lister, four bar two section sixty-six teeth iron lever harrow, two section, five bar, steel frame lever harrow, six different kinds of hand walking plows, one Western Queen rod breaker. Hayes Pump and Planter Company, Galva, Ill.—Hayes' check row planter, steel frame, Eclipse planter, steel frame, one-horse drill, Boss shoveling board and Daisy shoveling board, besides a railing of pumps. The S. Freeman & Sons Manufacturing Company, Racine, Wis.—Hand cutter, hand and power cutter, ensilage cutter and carrier, farm fanning mill, warehouse fanning mill, pole saw, Freeman broadcast seeder. Elkhart Carriage and Harness Manufacturing Company, Elkhart, Ind.—Wagonette with glass sides and ends, milk wagon, light Brewster wagon, end spring, leather top buggy, single seat phaeton and double seat, extension top phaeton, besides a line of harness and saddles. N. P. Bowsher, South Bend, Ind.—Six different styles and sizes of Bowsher's combination feed grinding mills. The Nordyke & Marmon Company, Indianapolis, Ind.—Portable corn mills, hominy mills, portable wheat mill, portable grain mill, corn mill with cob crusher, and mills for minerals, drugs, etc. Eclipse Manufacturing Company, Middlebury, Ind.: Three Eclipse seed grading machines, operating on different kinds of grain. The Hydraulic Press Manufacturing Company, Mt. Gilead, Ohio—Hydraulic cider press complete, Ohio apple grater, hydraulic (double) belting press, hydraulic tankage press. J. E. Porter, Ottawa, Ill.—A full line of hay carriers consisting of both wood and steel track. The Joliet, Ill., Strowbridge Company—Champion wagons, Champion endgate seeders; Champion, Peerless and Climax broadcast sowers; Peerless feed grinder. R. Lean & Co., Mansfield, Ohio—Set of three-section Diamond Lean all steel harrows, and set of three-section Zig Zag Lean all steel harrows, adjustable tooth. E. A. Porter & Bros., Bowling Green, Ky.—Roller corn and cob crusher, crushing corn with the shuck on, and cylinder feed and ensilage cutter. S. L. Allen & Co., Philadelphia, Pa.—A full line of flexible flyers and flyer coasters, and a full line of Planet Jr. goods. P. K. Dederick & Co., Albany, N. Y.—Two presses, a steam power and a horse power machine. Duane H. Nash, Millington, N. J.—Acme pulverizing harrow, in two, three and four sizes.

CHIEF BUCHANAN.

"If I had the privilege of seeing only one World's Fair department," said a gentleman, "I would choose the Agricultural. In no other building can one come so near the people of other lands. In the Agricultural Building you are close to the soil, to that which gives sustenance. As a matter of course the life, habits and cus-

toms of the people are shown in a more direct way. The Agricultural Building is the place to study the world as the world is."

W. I. Buchanan, chief of the Agricultural Department, came originally from the State of Ohio, where he was born 1853, at Covington, Miami County. He spent his youth after the manner of most country boys, going to school during the winter months and in the summer working on the farm. At the age of 18 he moved to Rochester, Ind., and lived with his grandfather, who was a farmer. The following year he learned the trade of making edged tools. Mr. Buchanan embarked in various mercantile enterprises, until in 1872 he was appointed engrossing clerk in the Indiana House of Representatives, which office he filled for two terms. In 1881 he emigrated to Sioux City, Iowa, where he has since been prominently connected with many of the city's leading enterprises. He was instrumental in establishing the celebrated "corn palace" at that city in 1887, and successfully managed the Peavey Opera House since 1888.



SWIFT'S UNIQUE REFRIGERATING EXHIBIT, IN THE AGRICULTURAL BUILDING.

A Glass Railroad Car, holding produce in patent cold storage.

THE McCORMICK HARVESTING MACHINE COMPANY.

IT was while at Paris in 1878 that the late Cyrus Hall McCormick was elected a corresponding member of the French Academy of Sciences on the ground of "having done more for the cause of agriculture than any other living man." Since then Mr. McCormick has left these busy scenes of earth, but through the vast industry founded by him he continues and will continue to exert an influence throughout the length and breadth of this and every land as long as grass grows green or grain is burnished into gold. In asserting that Mr. McCormick had excelled all others in contributing to the agricultural interests, the French Academy referred to the fact that in him they recognized the inventor of the reaper and that the value of the invention, in its particular sphere, was without a parallel. It will therefore interest our readers to know something more specific relative to the man and the business established by him.

In the manufacture and sale of harvesting machinery millions upon millions of dollars are annually expended by the various firms, but for the reason that Mr. McCormick was the inventor of the first successful machine in this line, and because of the position held by the McCormick Harvesting Machine Company to-day, we have selected this institution as a representative one and on page 286 will be found a view of their very attractive exhibit at the Exposition. We say attractive advisedly, for these McCormick machines are beautifully finished in gold and silver plate and in all other respects evidence the high degree of scientific and mechanical skill possessed by the artisans of the McCormick works. The standing of this company and the high esteem in which their machines are everywhere held is another illustration of what may be accomplished by the concentration of energy to a single purpose. Pope puts it neatly when he says:

> "One science only will one genius fit;
> So wide is art, so narrow human wit."

The McCormick works are devoted to the manufacture of harvesting machinery exclusively and in their exhibit are seen machines that are well known and highly endorsed by the agriculturalists of two hemispheres. Among these we may mention that celebrated grain harvester, the "Machine of Steel." Its peculiar virtues are in its matchless steel frame and the McCormick "simple knotter," the former contributing to its well-known durability and the latter to its unfailing accuracy in grain-binding. Besides this, two other types of binders are shown, the "Open Elevator"—specially designed for handling long, heavy grain; and the "Bind-

lochine"—a machine for low binding, or binding grain without elevating it over the main wheel as in the ordinary type of harvesters. Next comes the McCormick Rice Harvester, the Daisy reaper, and that king of grass cutters, the McCormick No. Four Steel Mower. In addition to these machines there are shown the following models: Reaper of 1831 (the original); Reaper of 1851 (winner of the Grand Council Medal at the First World's Fair, London, 1851); Reaper of 1867, which was awarded the Grand Prize at the Exposition Universalle, Paris, of that year; first twine binder; wire binder, winner of Grand Prize and Object of Art at Paris in 1878; No. 4 Steel Mower and the "Machine of Steel," both winners of the highest awards and medals all around the world. In this connection it should be remembered that McCormick machines have been awarded the grand prizes and highest honors at every World's Fair ever held. These trophies are a part of the company's exhibit. We refer to them in corroboration of this broad assertion. Should the World's Columbian Exposition awarding committee find higher merit in some other line of grain and grass cutters, and bestow the honors elsewhere, it will be the first break in this remarkable chain. There is not, however, even a remote possibility of this. Of the many manufacturers of harvesting machinery having exhibits at the Exposition, the McCormick Company was the only one to accept the committee's invitation to participate in the competitive tests of grain binding, thus demonstrating their claims for superiority; and with one exception, the McCormick mower was also the only one to prove its worth by cutting grass in the field.

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CHAPTER VI.

AMONG THE TREES OF THE WORLD.

Big Trees and Little Trees from All Over the World—The Forestry Building One of the Most Unique and Interesting of All—Nature Versus Staff—Magnificent Specimens of Characteristic Timber Growths—Paraguay Alone Sends 321 Varieties—California Sends Redwoods and Sequoias—Medicinal Trees, Lichens and Mosses—Methods of Seed Testing, Transplanting and Measuring—The Protection of Young Trees Against Insects—Logging and Lumbering—A Saw Mill in Operation—A Most Entertaining and Instructive Exhibit Throughout.

ALTHOUGH Forestry and Live Stock are separate departments from Agriculture, Chief Buchanan has been practically in charge of these from the first. The forestry building is sui generis. After seeing the magnificence of staff construction in the more pretentious buildings it is with relief that many visitors turn to the rustic simplicity of the forestry building. The quality of ornamentation also differs here. Instead of the intricate work of designers, molders or artists, the highest effects in the forestry building come from groupings of natural woods. No other building on the grounds shows so clearly at first impression the uses for which it is designed. The scope of the world's fair forestry exhibit is of peculiar interest to Americans. When a separate department of forestry was created it was pointed out that the opportunity had arrived to make constructive forestry as important a science in this country as in Europe. On this idea the fair managers have worked with a will. Although constructive forestry and the restoration and preservation of forests are yet in their infancy in America, it is believed that the turning point has arrived and that the World's Fair exhibit will have a most potent influence in preventing the further wholesale destruction and waste of native forests.

One of the remarkable features in arranging for the forestry exhibit was the absence of any reliable data in this country as to the extent, variety or value of native forests. In appealing for exhibits from the various states and territories the Fair officials have laid great stress on the importance of securing this data for purposes of exact comparison and history. The prodigal waste of timber in America has no parallel in the uses of any other natural product. Even at the present day white oak trees, one-fourth matured, are cut down to make railroad ties. Millions of acres of valuable timber in some of the Pacific states are burned for the sake of clearing the land. Only in some portions of the United States has the growing scarcity of timber called a halt to the destruction processes. Forestry, as a science,

is only beginning to be taught here as it is in Germany, where there are schools of forestry and thousands of graduates engaged in the actual business of forest preservation.

Besides the destructive waste in the timber states, there are millions of acres in the United States where not a single natural tree is found by the first settlers. The remarkable growth of timber in the west, following the institutions and observance of Arbor Day, is one of the most interesting features of the exhibit.

This is of peculiar value to all countries or states interested in emigration to the west. When it becomes known that the so-called prairie states may have as many artificial forests or timber growths as the owners of lands may choose, there is an end to many of the objections against taking up homes in the west. The World's Fair exhibit is also designed to show the effects upon climate and soil of tree planting, and also the economical value of the timber thus planted, the expense of its culture and all other features of like interest.

The forestry building itself is 200 by 500 feet in area. On all four sides is a veranda, with supports forming an imposing colonnade. This colonnade is one of the most unique affairs ever designed and is peculiarly appropriate to a cosmopolitan fair. It is built from woods contributed by foreign countries and about thirty states and territories. It consists of a series of columns, each composed of three tree trunks twenty-five feet long. One of the trunks in each column is from sixteen and the other two are from nine to twelve inches. All the trunks have the natural bark of the tree. Each of the states, territories and foreign countries, furnishes specimens of the most characteristic timber growths within their borders. The sides of the foresty building are built of slabs with the bark removed. The rest of the building, including the window frames, has the same rustic treatment. The roof is thatched with tan and other barks.

FORESTRY BUILDING.

The main entrances are finished in different kinds of wood and are very elaborate. The one on the east side, facing the lake, deserves special mention. It is put in place and finished by the Southern Lumber Manufacturers' Association. The vestibule is of yellow pine and cypress. It is built in such a way as to show the susceptibility to polish of the southern woods and their usefulness for panels and interior decorations. The cost of this main vestibule alone was between $5,000 and $10,000. Some of the states, Alabama, for instance, have sent tree trunks for the forestry colonnade, although prohibited from making an interior exhibit by lack of appropriations. The tree trunks in the columns taper toward the top and are joined by rustic work in longitudinal sections. Some of the latter are also furnished by the states contributing the columns. On each column there is a tablet, giving the common and scientific names of the trees and the state or country contributing them, besides other valuable information concerning the resources of the locality. Above the cornice of the veranda, on all four sides of the building, are flagstaffs, which bear the colors or coats of arms of the nations or states represented in the interior exhibits.

The interior exhibits are in several main groups. Natural woods are shown exclusively by states, territories and foreign countries. The product of the various woods, finished, or partially finished, are shown by individual exhibitors or firms. The methods and processes of manipulating timber at every stage, from the tree trunk to the finished product, are shown by firms or corporation. The completely finished product is not shown in this building, as it belongs to the department of manufactures; neither is there any machinery in motion in the forestry building. It is a still exhibit, but the various ways of denuding forests for economic and commercial purposes are shown by medals, maps, drawings and other methods.

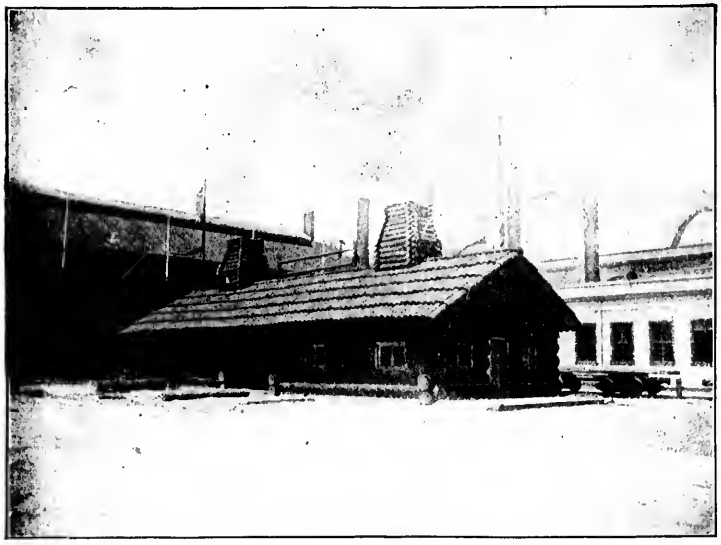
The foreign countries which have obtained space inside the forestry building are Japan, Honduras, Peru, Hayti, Spain, Germany, Ecuador, Colombia, Brazil, Mexico, New South Wales, Canada, Russia, Italy, France, Siam and India. Each of these countries has a separate space, and makes a showing of its most characteristic woods. Miniature structures are built, with arches and railings of natural wood and in rustic designs. Canada has the largest space of any foreign government, and the various provinces of the dominion make an interesting showing of their timber resources.

The states and territories which have interior exhibits are Pennsylvania, Louisiana, Virginia, Arizona, Kentucky, Minnesota, Nebraska, Montana, Wyoming, New Mexico, Wisconsin, North Dakota, Ohio, Washington, Michigan, West Virginia, Missouri, North Carolina, Indiana, Maine, New York, California, Utah and Idaho. Of these West Virginia and Michigan have the largest space, and the exhibits from these states are on an elaborate scale. Other states show peculiarly unique specimens, and the grouping of woods in the various spaces forms a most artistic whole. Sections of tree trunks are built one on the top of the other, and each portion of the exhibit is accompanied by detailed information as to the locality producing the exhibit, the area still under growth and where located, and all other pertinent information.

It is one of the rules of the forestry department that there shall be no finished wood products in the building, and where it is necessary to show the special uses of certain kinds of woods it is shown by pieces of disjointed furniture or other partially finished product.

The foreign exhibits include all the remarkable woods and wood products that are familiar in name only to Americans. The India exhibit includes sandal woods and a precious government collection of unique and valuable woods. Brazil shows the various grades of mahogany, California the red wood, Sequoia, and 65 others, Canada the various pines, birch and maple and a host of other trees of commercial value.

Some of the state exhibits are peculiarly interesting. Nebraska shows the results of tree planting and the special results of the observance of Arbor Day in that state. This exhibit contains specimens of actual woods, with tabulated information showing the age of each specimen, how and when planted. North Dakota makes a similar exhibit. Some of the exhibits are genuine surprises. For instance, Kentucky, which is not popularly considered a forest state, shows as elaborate an exhibit as most of its neighbors. From Kentucky there are specimens of white oak, four or five feet in diameter, built in the form of a pyramid. Kentucky also shows a very fine relief map, pointing out the principal forests in the state, with full statistical information regarding them. Ohio, Wisconsin and North Carolina make exhibits of medicinal plants and herbs gathered in those states. Ohio alone shows varieties of medicinal herbs amounting to 400 or 500. This is a new feature in America exhibits. One of the remarkable foreign exhibits is from Paraguay, which shows 321 varieties of woods, each one meter high and from twelve inches to four feet in diameter. In this exhibit are beautiful specimens of barks, dye woods and other commercial products of that portion of South America. The Argentine Republic has an exhibit of remarkable woods.



LOGGING CAMP—WORLD'S COLUMBIAN EXPOSITION.

France and Germany make the best scientific exhibits, giving illustrations of constructive forestry from the results of wide experience. Japan makes a most creditable showing, and the various wood specimens from the flowery kingdom are the first ever shown outside of that country.

Among the spectacular exhibits is an immense trophy in the center of the building. This consists of a collection of large natural timbers from various states. North Carolina sends a large walnut log, Kentucky a mammoth white oak, Kansas a walnut log seven feet in diameter and weighing 30,000 pounds. There are immense tree trunks from the State of Washington. Another spectacular exhibit is a long spar of ship timber from Washington.

The individual commercial exhibits include specimens of wood pulp, cork, parts of furniture and woodenware. The pulp industry, which is rapidly growing in importance, is represented by several exhibitors from foreign countries. The exhibit contains the most complete display of the utilization of wood products that has ever been brought together.

Among the prominent individual exhibitors is the Western Indurated Fiber Company, which shows a multitude of articles made from wood fiber, including household utensils. The R. W. Macready Cork Company make an elaborate exhibit of all the varieties of cork.

Probably the greatest scientific collection in the forestry exhibit is the one sent by Morris K. Jessup, of New York. The Jessup exhibit is an exact counterpart of the famous collection of woods in the New York Museum of Natural History, which Mr. Jessup contributed to that institution at a personal expense of $100,000. There are 428 specimens of wood in the original collection, and these are practically duplicated in the World's Fair exhibit.

Another valuable scientific exhibit is that placed in the Foresty Building by George W. Vanderbilt, the young New York millionaire. This is the principal American exhibit on the science of forestry. On Mr. Vanderbilt's country estate, at Asheville, N. C., the science of forest preservation and cultivation has been introduced by skilled foresters from Europe. Young Mr. Vanderbilt has collected a lot of valuable material pertaining to the care and culture of trees, including maps, models and working utensils. These are shown under the direction of the chief forester of the Vanderbilt estate.

Among other individual exhibits are all kinds of wood used in construction or manufactures, such as square timber, joists and scantling, ship timber, masts and spars, piles, fencing timber and mining timber. There are worked timber or lumber, including shingles, flooring, casings, moldings and stair rails, and there are decorating woods, such as mahogany, rosewood, satinwood, ebony, birdseye maple and black walnut. In the treatment of timber to resist decay there are shown specimens of creosoted woods. The dyeing and tanning woods include logwood, Brazil wood, fustic and sumac, besides the various barks and mosses used in dyeing and coloring.

One of the interesting class exhibits are lichens, mosses, ferns and other vegetable substances used for bedding and upholstering. Another class of exhibits

EXHIBIT OF McCORMICK HARVESTING MACHINE COMPANY, AGRICULTURAL BUILDING.

include gums, resins, seeds, fruits, roots, berries and other forest products used in the arts and sciences, or for medicinal and household use.

In the department of timber culture and cultivation there are shown transplants of various sizes, seed collections, and methods of seed testing. Implements and machines for preparing the soil and planting trees are also shown. Seed nurseries are illustrated, also the methods of protecting young trees against insects, animals and climate. The section relating to forest management contains instruments for measuring standing timber and illustrations of the methods used in calculating ages and the effect of certain soils on tree growth. In this section there are interesting exhibits showing the relation of forests to climate and the relative climatic changes produced by destructive and constructive forestry.

Outside the Forestry Building, but connected with the department, is shown a typical logging camp. This is contributed by Michigan, and is located at the south end of the park.

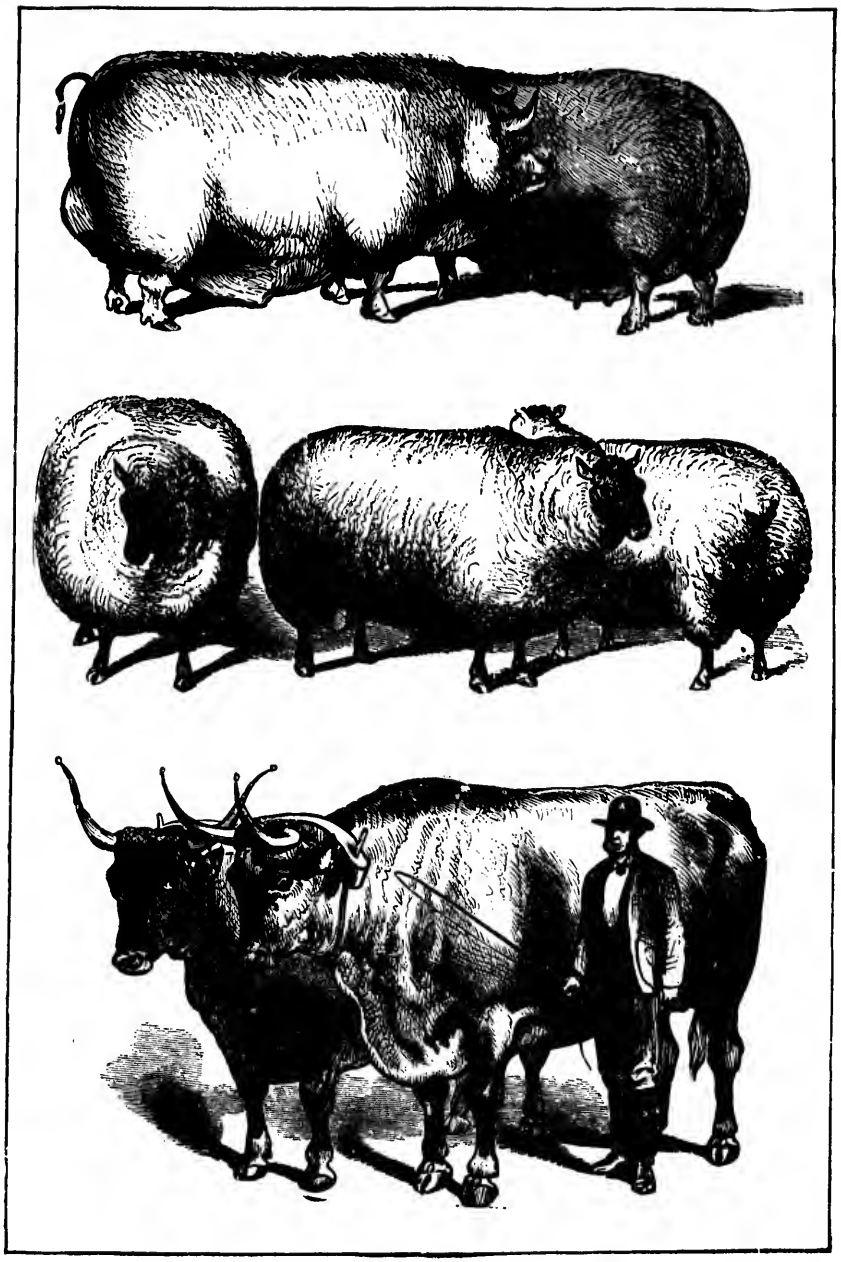
Logging methods are otherwise shown, including snowsleds loaded with logs, saws, axes, chains, skids, rollers and old implements used in the early days by the lumbering industry. There is also a typical logging hut, showing how lumbermen live in the backwoods. In another part of the grounds, near Machinery Hall, is shown an actual sawmill in full operation. The process of converting logs into various kinds of lumber is gone through on a realistic scale.

To practical builders from other countries the Forestry Building itself conveys many suggestions concerning American methods of house raising. There is not a single nail used in the construction work. The method of construction followed by Mr. Atwood, the designer, is intended to show peculiarly American methods of joining timbers so as to economize materials. As has been stated, this is one of the most interesting and instructive exhibits at Jackson Park.

The live stock exhibit is also under Mr. Buchanan's control. The pavilion seats 6,000 people. The Assembly Hall, where prominent agricultural lecturers hold forth and where lectures were delivered at various times during the Fair, is cool and capacious. The regular stock show did not commence until August 21, and then sheep and swine were exhibited at one time and cattle and horses at another. There were sheep from Australia and Angora goats from California. In the horse show there were many animals entered from abroad, some of them from the famous studs of Germany, France and Great Britain. There were also dog shows, carrier pigeon flights and dairy contests at times during the progress of the Exposition.

The cows that participated in this latter contest were the very elite of the world's barnyards. They belong to the herdsman's 400. Every one of them is blue-blooded and has a pedigree in the herd books as long as a man's arm. Every one of them, as her name indicates, is somebody's darling. Every one of them has a body servant and is a farm pet. Every one of them is fed, curried, rubbed, and waited on in the most obsequious manner. In the case of some of them their keepers often lie down in the straw by their sides at night and sleep with them. Some of them have national or world-wide reputations.

EXHIBIT OF McCORMICK HARVESTING MACHINE COMPANY, AGRICULTURAL BUILDING.



STOCK EXHIBIT.

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The idea of a model dairy and milking contest between the leading breeds of cows was first earnestly proposed by the Columbia Dairymen's Association at a meeting held in July, 1892, and at a later meeting held in November at the Sherman House. Its recommendations met with the approval of the Exposition directors. The object of this contest is a protracted and exhaustive test of the milk, butter, and cheese productiveness of several rival breeds of cows, each of which has its admirers and supporters who claim for it pre-eminence. Something of the kind on a small scale, lasting for a single day, has often been seen at State fairs. But never before have there been experiments for this purpose extending through several months, with such large herds of cattle and with such unlimited scientific appliances and supervisions. The ephemeral experiments at State fairs have settled nothing, but it is confidently expected that the present contest will be absolutely decisive as to the relative merits of the breeds that have been entered.

Among the Jerseys at different times at Jackson Park there were such world-renowned cows as Messrs. Matthews and Moore's (Alabama) Signal's Lily Flagg, with a butter test of 29 pounds 11 ounces in seven days, 1,047 pounds ¾ ounce in 365 days; D. F. Appleton's (New York) Eurotisama, 27 pounds 1½ ounces in seven days, 946 pounds 9 ounces in 365 days; Judge Foster's (Minnesota) Islip Lenox 711½ pounds in a year; C. I. Hood's (Massachusetts) Little Goldie, 34 pounds 8½ ounces in seven days; C. Dickson's (Ohio) Pridalia, 26 pounds 4 ounces in seven days; Ayer & McKinney's (Philadelphia) Daisy Hinman, 24 pounds 10 ounces in seven days; W. E. Matthews' (Alabama) Alteration, 24 pounds ½ ounce in seven days; H. C. Taylor's (Wisconsin) Brown Bessie 20 pounds 8 ounces. No less remarkable are the milkers to be found among them, such as Messrs. George Fox's (Philadelphia) Rita of Andalusia, 75 pounds of milk a day; Edgar Brewer's (Connecticut) Sayda 3d, 60 pounds of milk a day; John Boyd's (Chicago) Annice Magnet, 48 pounds a day; and others the pick of the crack herds in the states of Vermont, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Alabama, Missouri, Mississippi, Tennessee, Kentucky, Ohio, Illinois, Michigan, Iowa, Wisconsin, and Minnesota. There was also a splendid showing of Holsteins and some others.

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CHAPTER VII.

HORTICULTURAL BUILDING.

The Grandest and Completest Structure Ever Erected for a Horticultural Exhibit—It Contains 89,000 Square Feet of Space More than the Combined Areas of the Buildings used for a Similar Purpose at Paris, the Centennial and New Orleans—Sketch of J. M. Samuels, Chief of the Department of Horticulture.

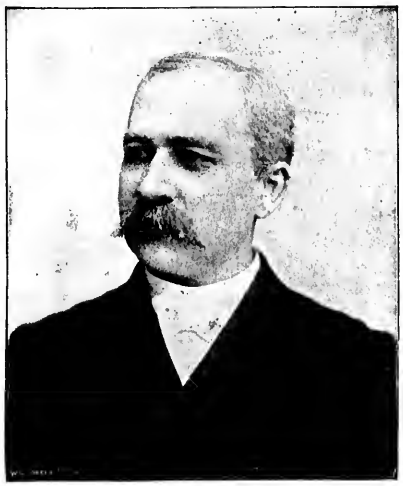
HORTICULTURAL Building is altogether the largest, grandest and completest structure ever erected for a horticultural exhibition. It contains about 89,000 square feet more of floor space than the combined floor areas of the buildings used for a similar purpose at the Centennial, New Orleans and Paris. It is 1,0[illegible] feet long by an extreme width of 287 feet. The dome is [illegible] feet in diameter and has an altitude of 113 feet on the inside, thus giving room for the largest palms, bamboos, tree-ferns, giant cacti, etc. The basso and alto relief ornamentation, in a frieze extending along the front and sides of the building, is especially attractive and, in connection with statuary and fountains, possesses an unusually pleasing effect aside from the plant decoration, which harmonizes with the general ideal of the building.

The plan is a central glass dome, connected by front and rear curtains, with two end pavilions, forming two interior courts, each 88 by 270 feet. In these courts are placed bearing orange trees and other semi-tropical fruits from California and Florida, to illustrate the manner of growing and cultivating the orchards and groves in those states. The front curtains have glass roofs and are each 270 by 69 feet. These are used for the tender plants. The rear curtains are each 346 by 46 feet, and, while designed to give an abundance of light, are not entirely covered with glass. They are adapted to fruit and other exhibits that require a comparatively cool temperature. The first stories of the pavilions are each 117 by 250 feet, and are intended for the extension of the fruit display and for the viticultural exhibit in one, and horticultural appliances, seeds, etc., in the other. The principal part of the second story in each is used for elegant and commodious restaurants; the remainder, in the form of galleries, for garden seats, vases, preserved fruits, etc. Forming a circle inside the dome there is a broad promenade gallery from which visitors look down upon the plant and floral decorations. This gallery is sufficiently extensive for promenade and for many miscellaneous exhibits.

Horticulture, technically and separately did not cut much of a figure, and was represented by the orange and lemon trees in the north court and by about two

acres of nursery trees in the Midway Plaisance. These were under the supervision of J. M. Samuels, Chief of the Department, who was born February 26, 1845, at Berksville, Cumberland County, Ky. He was educated at Clinton Academy and at the Kentucky University. His father owned the Mississippi Valley Nurseries, in which Mr. Samuels learned the business. He was appointed Chief of the Department of Horticulture, in August 1891, which up to that time had been in charge of James Allison. He is first Vice President of the American Horticultural Society, which also takes in Canada and Mexico, and he is also a charter member of the Chicago Horticultural Society.

The Horticultural, unlike every other department, is divided, the divisions being known as Floriculture, Viticulture and Pomology, each of which was in charge of a subordinate chief or superintendent, until in April, 1893, when Floriculture was officially and entirely eliminated from the Department of Horticulture on account of the tremendous importance and proportions of the realm of flowers and the necessity of having Floriculture in direct touch with the Director-General and for a multiplicity of other reasons not necessary to enumerate, and John Thorpe, its superintendent, was given independent control, with instructions to assume the methods and authority of other departmental officers. Mr. Samuels retained supervision of the other divisions until the close, however, at least in a negative way, as each was in charge of an active and competent officer.



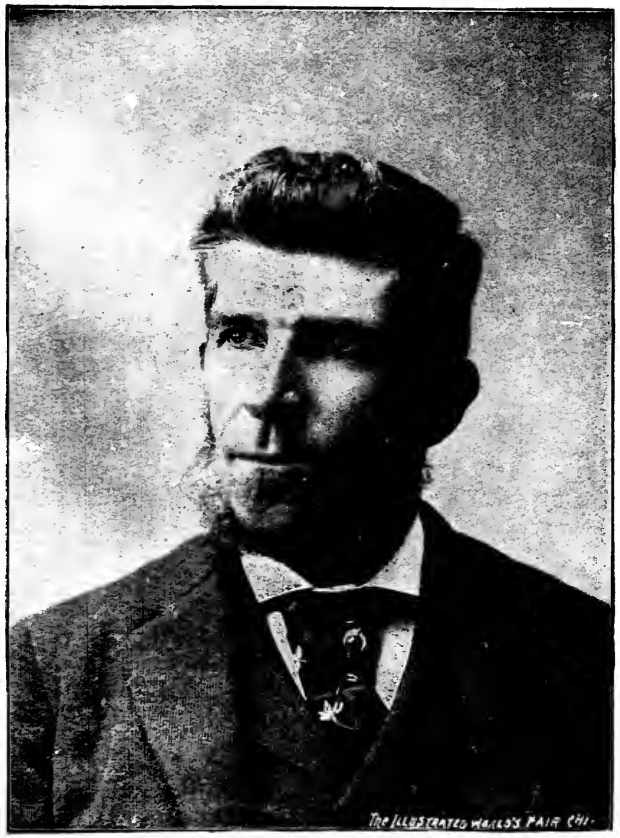
CHIEF SAMUELS.

CHAPTER VIII.

IN THE REALM OF RARE FLOWERS AND PLANTS.

A Ramble Among Rare and Aristocratic Plants—More than Half a Million Dollars' Worth from Greenland's Icy Mountain to India's Coral Strand—North and South America, Mexico, Cuba, Europe, Central America, China, Japan, Australia, and the Hawaiian and South Sea Islands Represented—Enchantresses from the Amazon and the Nile—Modest Inhabitants from the Alps, the Appenines, the Sierra Nevada, and the Mountains of the Moon—Wonderful Ferns and Palms from New South Wales and the Cape of Good Hope—Tens of Thousands of Miscellaneous Herbaceous Flowers and Flowering Shrubs—More than a Half Million Orchids, Roses, Carnations, Lilies, Pansies, Cannas, Fuschias and Petunias—Magnificent Exhibits by Australia, Canada, Trinidad, New York, Pennsylvania, Germany, Belgium, Mexico and Japan—Australian Tree Ferns Six Hundred Years Old—Staghorn and Bird's Nest Ferns of Wonderful Size and Beauty—Splendid Collections of the Cereus Gigantea—Great Display of Rhododendrons—Splendid Collections of Ferns and Palms from Toronto Conservatories—Dwarf Trees in the Japanese Garden Over a Hundred Years Old—Pitcher and Manda's Wonderful Display of Seven Thousand Costly Plants—Enormous Bamboos from Trinidad—Two Century Plants in Bloom—The Atmosphere of the Horticultural Building Freighted with Aromatic Sweets.

THE most prominent feature of the Horticultural Building is the floral collection, which exceeds in wonder and magnificence anything of the kind ever before seen at any public or private conservatory, and is the result of the work of John Thorpe, of New York, chief of the Department of Floriculture, who is believed to be the most eminent floriculturist that has ever lived. His was one of the earliest appointments, and his genius and aptitude gave the public, among other things, the procession of winter and spring hot-house plants among which were primulas, cyclamens, cinnerarias and calceolarias, which drew nearly a million people to Jackson Park before the formal opening. There is no land that does not grow more or less varieties of plants and flowers. This statement was spectacularly emphasized upon the first day of May last, when the contributions from the floral kingdoms of all nations were seen on dress parade at the Horticultural building. There were palms and ferns and bays and acacias from Australia, Japan and California; cacti from Mexico, New Mexico and Arizona, and many stately plants of massive foliage from Mexico, Cuba, New Zealand, Central and South America and the Cape of Good Hope. There were also to be seen roses in pots, calceolarias, azaleas, rhododendrons, begonias, cycads, crotons, dracænas, ariods, marantas, pelargodiums (geraniums) and miscellaneous stove and greenhouse plants in flower and foliage. Among cut flowers there were orchids,



JOHN THORPE, CHIEF FLORICULTURE.

MAJ. BEN. C. TRUMAN, ASSISTANT CHIEF FLORICULTURE.

roses, carnations, lilies, pansies and miscellaneous hardy and tender kinds. There were also a very great variety of flowers outside of the Horticultural building—principally pansies, tulips, hyacinths, narcissus and miscellaneous bulbous and herbaceous flowers and flowering shrubs upon the opening day.

During June there were seen indoors, in addition to a number of those exhibited in May, fuschias, petunias, cannas and nepenthe, and among the cut flowers, peonies and some others. The additional outdoor plants included campanulas and aquilegias.

Among the indoor plants for July were orchids, tuberous begonias, ornamental leafed begonias, shrubby begonias in flower, gloxinias, achimenes, gesaniaceous plants and caladiums; and among cut flowers, cannas, lillies, tuberous begonias, sweet peas, hollyhocks, tea roses and various annuals. Out doors were seen various annuals, clematis, lilies, sweet peas, tea roses and miscellaneous herbaceous plants.

The cut flowers for July included orchids, roses, carnations, dianthus, gladiolus, herbaceous and and annual phlox, asters, sweet peas, tall and dwarf zinnias and miscellaneous annuals—herbaceous and flowering shrubs.

August was the coronation month of Flora, for upon the grounds were seen carnations, dianthus, dahlias, gladiolus, cannas, asters, annual and hardy phlox, clematis, hollyhock, hydrangeas, tuberous begonias, cacti, hardy and tender aquatics, roses, sweet peas, verbenas, ornamental grasses, palms, ferns and many others too numerous to mention.

Inside during September, besides the palms and ferns, were orchids, tuberous begonias, asters in pots, and miscellaneous stove and greenhouse plants in flowers and foliage. Among the cut flowers there were carnations, tea roses, dahlias, gladiolus, cannas, petunias, asters, hardy and annual phlox, zinnias and miscellaneous hardy herbaceous flowers. Out of doors were seen roses, carnations, dahlias, cannas, tuberous begonias, petunias, asters, zinnias, verbenas and miscellaneous herbaceous plants and annuals.

October, the closing month, there were on exhibition inside the building palms, ferns, orchids, chrysanthemums, pelargodiums, tuberous begonias, cannas, cosmos and some others. Among the cut flowers are dahlias, chrysanthemums, cannas, roses, carnations, begonias, pansies and miscellaneous hardy and tender plants. The procession of the months now found but few flowers upon the grounds, except that the chrysanthemums were in all their glory. There were also a few miscellaneous hardy plants.

The lover of rare plants had an opportunity to regale himself to his heart's content, and to acquire an information that would have taken him years to have obtained from travels and books. He could gaze upon the *Cereus gigantea*, which only grows wildly between the Colorado and the Rio Grande, and which Humboldt declared was worth a trip across two continents to see. He could feast his eyes on the wondrous fern trees from Australia and palms from Mexico, the Windward Islands, Arabia, Palestine, and the Cape of Good Hope, and he saw acacias from Swan River, Mexico, California and New South Wales.

MAJ. BEN. C. TRUMAN, ASSISTANT CHIEF FLORICULTURE.

JOHN THORPE, CHIEF FLORICULTURE.

The Illustrated World's Fair Co.

In all civilized countries the cultivation of flowers has become a passion, and the rich and the poor indulge themselves in it according to their means. So constant is the demand for new species and varieties that the earth is ransacked by experts for something that has never been seen before.

Reaching from the ground high up in the dome was a mountain of selected palms and ferns and many other varieties of tree plants. Underneath this mountain was a second edition of Aladdin's Cave—a subterranean mansion of many chambers, tapestried and wainscoted with translucent crystals, and brilliantly and artistically illuminated. Through this gem-like cavern the water was filtered through crystals in the midst of incandescents, the effect of which was gorgeous and spectacular.

The southeast curtain was radiant with flowers, Illinois occupying space at the extreme end, and showing a pretty collection. Near by was a cactus patch representing some of the dreary spots that abound in New Mexico, and comprising many varieties of cacti, the creamy-flowering yucca, the Spanish bayonet, meschal, chulla, tuna, and some others. Massachusetts directly opposite contributed a number of fine ferns, one of which has remarkable spreading fronds. Missouri also made a creditable display, and California exhibited a few cactæceous plants. The place of honor in the southeast curtain was held by Pitcher & Manda, of Short Hills, N. J., who at the request of Chief Thorpe, loaned their collection, which, including their orchids, is valued at $50,000. These occupied a large space running down the middle of the curtain, 1,500 square feet, and two sections west, about 1,000 feet. They also had 2,000 square feet in the corner on the right, as the central door is entered from the west, and 7,300 square feet or one-third of the space between the main promenade and base of the mountain. These comprised, beside palms and ferns, many other stove and greenhouse plants, among which were eighteen Australian tree palms, believed to be from 400 to 600 years old; a large number of selected crotons of red and yellow; many varieties of dracænas and some superb anthuriums in foliage and flower. The latter is a native of South America. Then there were a splendid collection of marantas, with their great luxuriant, zebra-striped leaves.

There were a great many varieties of ferns that are seldom seen outside of a conservatory, among which was the golden fern, a native of Peru. This is unlike any other, and from its leaves impression may be made upon a coat sleeve, or other cloths, such as cassimere and the like, which would be mistaken for engravings. There were many exquisite ferns unknown to but a few, one of the rarest being the crested-sword fern, a native of South America; golden maiden-hair fern, tongue fern, and adianlum Farleyeuse, a variegated spurt of maiden hair, very scarce.

Among other rare plants in this collection were the heliconia aureo stuata, with broad spreading leaves with golden stripes, an umbrageous plant, standing six feet; aspidiastia, vivid in green and variegated colors; eighteen begonias rex, and several varieties of selaginelled, or club moss, natives of the East Indies, collections of bird's nests and stag horn ferns from Australia; more club moss, of a bronze

metallic color; Davalla Mooreana, a native of the South Pacific Islands; Pteris Wallichianu, a native of Japan, the largest fern in the collection, being eight feet across, and which was set out in three-inch pots three years ago; Pteris Victoria, named after the Queen of of England, a native of the East Indies and Southern Africa.

The collection also included Davalla Fijensis, a native of the Fejee Islands; a superb fern known as Harefoot; pyramids of fern asparagus of many varieties; flowering anthuriums in gaudy blossom and rich foliage; a large collection of flowering genista; 100 azaleas in orange, red and crimson flowers, the same number of hydrangeas, abundant of blossom. There were also eighty-four varieties of pineapple plants; 150 varieties of palms, thirty-two of Sago palms, or cycads, the largest of which was presented by Dom Pedro to Mr. Van Alen, of Newport, seventeen years ago, and which was secured by Mr. Manda for the Exposition. Also thirty-two varieties of Norfolk pine and more than a hundred cocoanut palms nine feet in height, growing out of the nuts—quite a novelty.

In the northeast curtain Australia divides the honors between Canada and Japan. Australia is represented by more than a score of tree ferns, hundreds of years old, and a large number of birds' nests ferns and stag horns, among which have been planted more than 2,000 plants, including eighteen varieties of tearoses, several hundreds of tuberous begonias and marantas and other enlivening flowering plants.

The Ontario (Canada) exhibit, the first on the right as the northeast curtain is entered, is from public and private conservatories of Toronto, and comprises some fine palms and fancy crotons, cacti, and eucalyptus. Next comes the Japanese garden, unique and interesting in all details. There is sweetness and seeming simplicity in well, curb, streamlet, tree, bush and flower. It was in complete order on the opening day, and has ever since attracted much attention. The narrow paths separate little trees and plants—parterres—which are not much bigger than table napkins and structures that might be taken for toys. Even the gardeners who made these were short and slender, but they gave a good account of themselves, nevertheless, and of the work that they were sent here to accomplish. Most of the Japanese plants came to Jackson Park all the way from Yokohama in chalet-like boxes of salmon-colored cedar wood, which were pierced with windows and covered with wire net work. Some of these plants suffered much during the voyage, and quite a number of them were killed outright and many others had to go into the nursery, with a special note of recommendation to the doctor in charge; he, however, hesitated in view of the delicate state of their health and the difficulty of hitting upon the best remedy, and therefore declined all

STATUARY.

A VIEW IN HORTICULTURAL BUILDING, GERMAN SECTION.

responsibility until some Japanese herb doctor should arrive; but Mr. Thorpe took many of them in charge upon the non-appearance of the herb doctor aforesaid and brought most of them into a state of convalescence, although a few were never pronounced out of danger.

On entering this miniature garden the visitor passes up a slight decline and enters upon a gravel walk, on either side of which are sticks of white and black bamboo, very skillfully combined. A little farther on are some steps cut in the shrubby slope and formed of the trunks of the fir tree. A low palisade in light bamboo work, held together by strips of bark, serves as an enclosure. Plants of minor value have been arranged along this serpentine walk, including the iris, isæoigate and pinus paroiflora.

Then there are modest little Japanese and American plants, arranged so that they may nod at each other while the big dahlias on the other side of the palisade seemingly look down proudly upon them. And there are beds of opbiopogom jaburan and cycads, whose bristling leaves spread from strange looking stumps and do not at first impress one with the idea that they enjoy much vitality. The convolvulus occupy several pots and may be seen climbing reeds set apart for its special behoof. Just beyond another shrubby enbankment are borders of exquisite blossoms, and here and there nice arrangements of Davalla bullata. Close by is an admirable collection of lilies, twenty-two varieties in all, which embalms the air for many yards around with a delightful perfume, not unlike that of the scents arising from the flowers of a bouquet of delicate aromatic odors. Among the lilies are the ordinary white, with only one or two flowers on the main stem.

Then there is an orange colored one dotted with black points and a proud looking beauty with a golden center. And there are varieties which are unknown, and which are incomparable for size and beauty. Some of these latter are enormous, and each petal is remarkable for its red, pink or violet stripes. But perhaps the *clou* of the *ensemble* are the dwarf trees for which Japan is famous, By what artificial process, trees, which if left to themselves would have reached a respectable height, have been cut down to the smallest dimensions, it would be hard to tell. But there they are, some so small that they could be held in one's hand, and but few of them quite a yard high, twisted and distorted trunks covered with knobs and warts, and giving life to slender branches which are kept so well within the required limits that they are perfect balls of verdure. Most of these stunted trees have passed through the hands of many generations of gardeners, for not a few have reached the age of one hundred years or more. There are two specimens of the thuya brevi-ramea, one of which is more than a century old, but which died on the way from San Francisco to Chicago during the terrible storms of the winter of 1892 93. There are others of the same family that look vigorous, but are similarly dwarfed and many of them centenarians. There are quite a number of dwarfed oaks and maples, whose denticulated leaves pass through every shade of red and yellow, and resemble the leaves of the American maple tree during the latter part of Autumn.

There are others that are curiously streaked and still others in which the foliage has jagged edges and bears marble-like, white, red and yellow veins. Here

A VIEW IN HORTICULTURAL BUILDING. GERMAN SECTION.

is the Fuiriteikakatsura, a very long name for a microscopic climber, with tapering and pointed leaves struggling ap a bit of light colored wood not much bigger than a giant's thumb. The utmost care has been given to the garden, which has a little meandering stream over which are rustic bridges and other evidences of a truly rural scene. A large number of cleafragranes and other Japanese plants are in pots which are of the best faience, porcelain and enameled ware. Altogether the Japanese garden is an exact reproduction of many at Tokio, where horticulturists are numerous in view of the widely prevalent taste for flowers. Farther along, up against the northeast corner, and then again in the northwest corner, are contributions from Trinidad, comprising ferns, palms, bamboos, crotons, and other tropical productions.

Returning we come upon the German exhibit, arranged by Herr Rudolph Schiller, in which are grouped collections of azaleas and rhododendrons brilliant in blossom, contributed by Otto Olberg, Dresden; Spiræa astilboides, from Oscar Tiefenthal, Wandsbeck; five thousand lilies of the valley, from Gustavus A. Schulz, and C. Van der Huissin, of Berlin, and from Julius Hansen, Pinneberg, and Oscar Tiefenthal, Wandsbeck; Buxus pyramides and Buxus Standards, some beautiful foliage trees and shrubs, and a new rhododendron, exhibited by T. J. Seidel, Saxonia. Interspersed are collections of hydrangeas, easter lilies, pelargodiums, dwarf palms, cyclamens, cinnerarias, calceolarias, sixteen varieties of pansies and cannas, the whole bordered with tuberous begonias and English primroses. In the midst of this are two pieces of statuary, one of which represents a spring group as often seen in the better greenhouses throughout Germany and the other a maiden at the fountain.

Next comes Belgium with a beautiful exhibit of azaleas and rhododendrons and other varieties; also four bay trees in blossom. The next sight is a novel one, being a mound of sixty-eight varieties of cacti, including a number of species never before seen in this country. The visitor now comes full upon the century plant, which was in perfect flower in May and which, while not gaudy or especially attractive, is illustrious.

The visitor now comes upon the New York side of the mountain, at the base of which is a magnificent assemblage of aristocratic members of the floral kingdom, many of them having been selected with artistic care and taste from pretentious palaces of plants on the Hudson, the Schuylkill and the Charles, among which are are a fine collection of dracænas and crotons from the Gould place in New York, said to be the choicest in the world; Pandamus Utilis and a pair of Arenga Bonnetii, believed to be the finest specimens in America; a Cycas Revoluta, one hundred and fifty years old and in fruit; Areca Lutescens, the queen of palms; Ravenala Madagascariensis, from the deserts in Madagascar, and better known as the Travelers' Tree; Areca Banri, very rare and very beautiful; an immense specimen of Caryoto Urens, forty feet high, a very valuable palm; the largest specimen in America of the Theophrasta Imperialis, a native of the East Indies; the Seaforthia Elegans, thirty-five feet and exceedingly graceful; Plectocomia Assamica, the only climbing palm in the United States, a native of the Sandwich Islands, from the Gould place, Irvington-on-the-Hudson, and many others conspicuous for their age and lineage.

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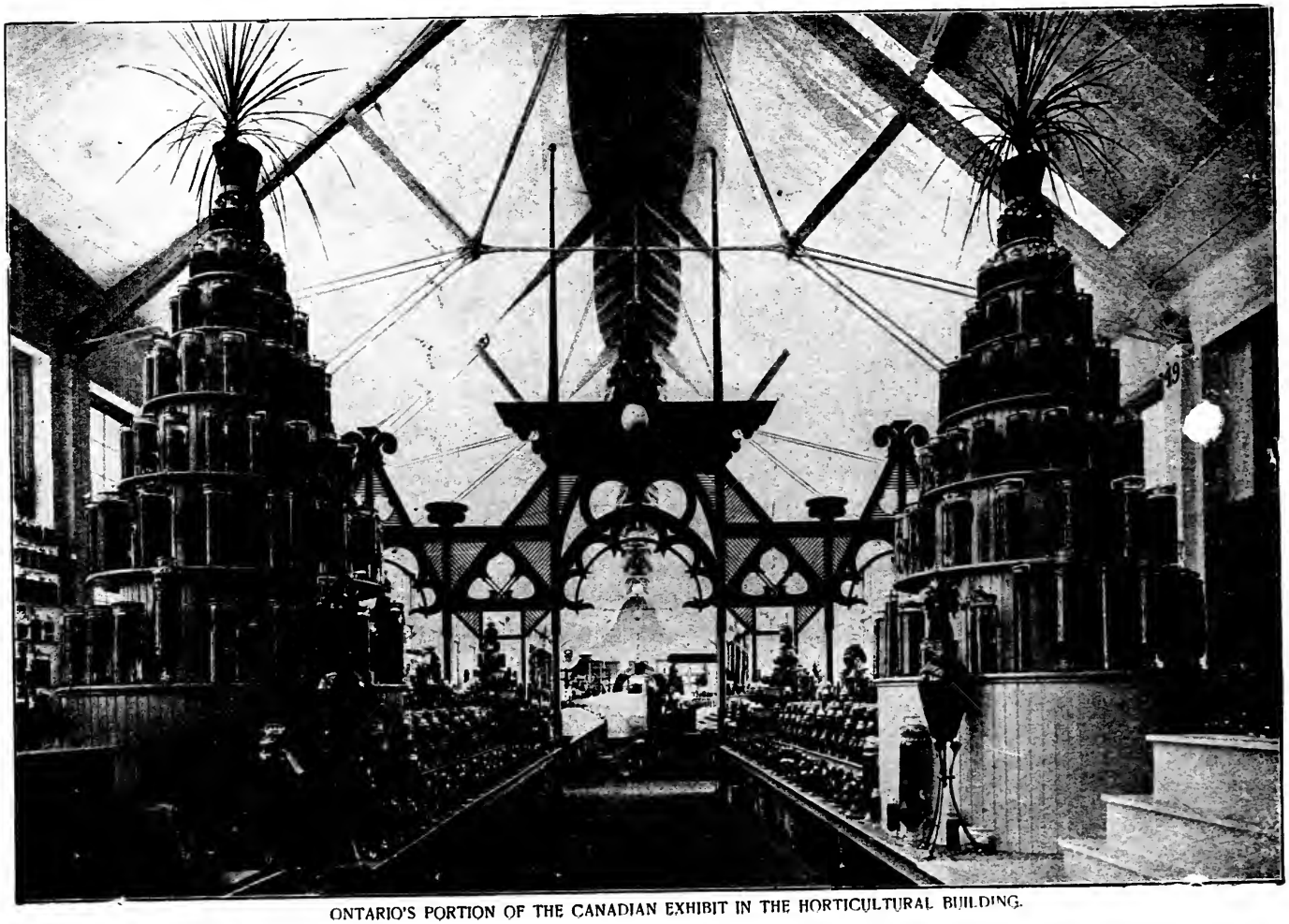


ONTARIO'S PORTION OF THE CANADIAN EXHIBIT IN THE HORTICULTURAL BUILDING.

VISTA IN HORTICULTURAL BUILDING.

VISTA IN HORTICULTURAL BUILDING.

CHAPTER IX.

THE FRENCH FLORICULTURAL EXHIBIT.

Many New and Rare Flowering and Foliage Plants—The Finest Azaleas and Rhododendrons Ever Seen in America—M. Jules Lemoine, Principal Gardener of the City of Paris, Introduces Many Lovely and Bewitching Members of the Realm of Flora and Encircles the Woman's Building in Bloom—He Also Enlivens Other Stretches of Sward.

BY REQUEST of the French Commissioner, Mr. Thorpe kindly consented that the French Floricultural section, in charge of M. Jules Lemoine, principal gardener of the City of Paris (Bois de Vicennes), should be represented elsewhere than in the Horticultural building, and so the eminent Parisian floriculturist elected to make displays uponthe grounds adjacent to the French building, upon the Midway Plaisance, the space north of the Horticultural building, adjacent to the Children's pavilion, the Puck and White Star Steamship Line pavilions and around the Woman's building. It is upon the latter space that M. Lemoine made his most elaborate and beautiful exhibit and one that will be long remembered by all who were so fortunate to see it in June and July.

On the east side of the Woman's building are a fine lot of siver spruces, fifty varieties in all, between four and six feet in height, and set out with much taste. There are also about forty azaleas, representing two varieties. A variegated Buxus and a new hardy plant known as acer negundo, folis aurea variegated, attract attention. Another plant that interests visitors is Ilex aquifolia argenta, which does very well in this section. It was in fine condition in July.

Proceeding toward the eastern entrance from the south may be seen a fine display of of Evonymus—Duc d'Anjou, marginata alba, marginata aurea, radicans, folvar, puchellus, etc., also three specimens of the new Abies picea pumila. Next are a number of lauros of Portugal which stand up in pyramids seven feet high. Some clusters of silver spruce are next seen between the eastern entrance and the northern end. Then there are a number of genista Andreana in yellow and maroon flower, and more buxus Araucaria imbricata.

Just north of the eastern entrance lauro cerasus rotundi folia stand up in pyramids attractively. On both sides of the northeastern corner of the building are sixty superb varieties of rhododendrons, all in flower in June, making a most striking appearance. Among them are the "Lady Eleanor," "Elvelyn," "Martin H. Sutton," "John Waterer," the father of the rhododendrons; "Princess Mary of Cambridge," "Stella," "Joseph Whitworth," "Mrs. Fitzgerald," and many others.

All of the above are from Messrs. Croux & Son, the well known florists and nurserymen of the Val of Aulnay near Paris. These plants came in willow baskets and bagging and were put up in such excellent shape for shipping that they never suffered in the least from their long land and ocean trip, and never lost a leaf.

Crossing the northern entrance to the Woman's Building and going west the lover of rare and beautiful rhododendrons stands in the midst of fifty as fine ones, all in flower in June as were ever seen in France, which surpasses all other countries in the production of this aristocratic plant, and which were contributed by M. Moser of Versailles. Among them are the "General Cabrera," "The Gem," "Michael Waterer," "Nelly Moser," "Star of Ascot," "Marechal MacMahon," "Blandyanum," "Caractacus," and "Imperatrice Eugenie.' From France, too, are some new azaleas—glauca stricta—a remarkably hardy plant, which flowers indoors in February and out of doors in May and June. The February flower is used largely for decoration in France, as it yields abundantly and makes a fine appearance as a cut flower. Among the other contributions from Paris is a new rare and beautiful foliage plant—Dimorphantus Manshuricus foliis argenteis variegatis and aureis, (obtained by Gouchaud), a native of the interior of Japan. There are two of these plants near the northeast corner of the northern entrance and two near the northwest corner of the plat, the only four in Chicago.

Near these are a splendid collection of cedars Libani aurea, a favorite the world over, and clusters of Evonymus Japonica elegans, of most exquisite foliage. There are close by twenty varieties of silver spruces and twenty-five varieties of cedars. In the middle of this plat are 100 new Hypericum Moserianum that the careless observer would take to be roses. They were in flower in July. These are sometimes called the Thousand-headed plant, on account of the interstices that may be seen through its petals with a microscope. Passing round to the western side of the building and going toward the south may be seen among the gorgeous rhododendrons and azaleas a little bed of Japanese maples, as fine as any in Japanese gardens. Further along are twenty-four Kalmia, which attract much attention; four superb specimens of azalea Pontica, rare and large; twenty azalea mollis, all in pink and white flowers in May and June. Some beautiful genista andreana in flower, fifty plants in all. Passing the western entrance and proceeding in a southerly direction one comes upon another beautiful exhibit from Georges Boucher, of Paris, consisting in part of 260 varieties of standard tea and hybrid roses, all rare or new. These were from five to six weeks on their voyage but not a plant was lost. Many of them are from three to four feet in height, and were planted six inches deep on account of the little root they had on arrival. Everyone is thrifty and were in flower all summer. Among these rare and new roses

STATUARY.

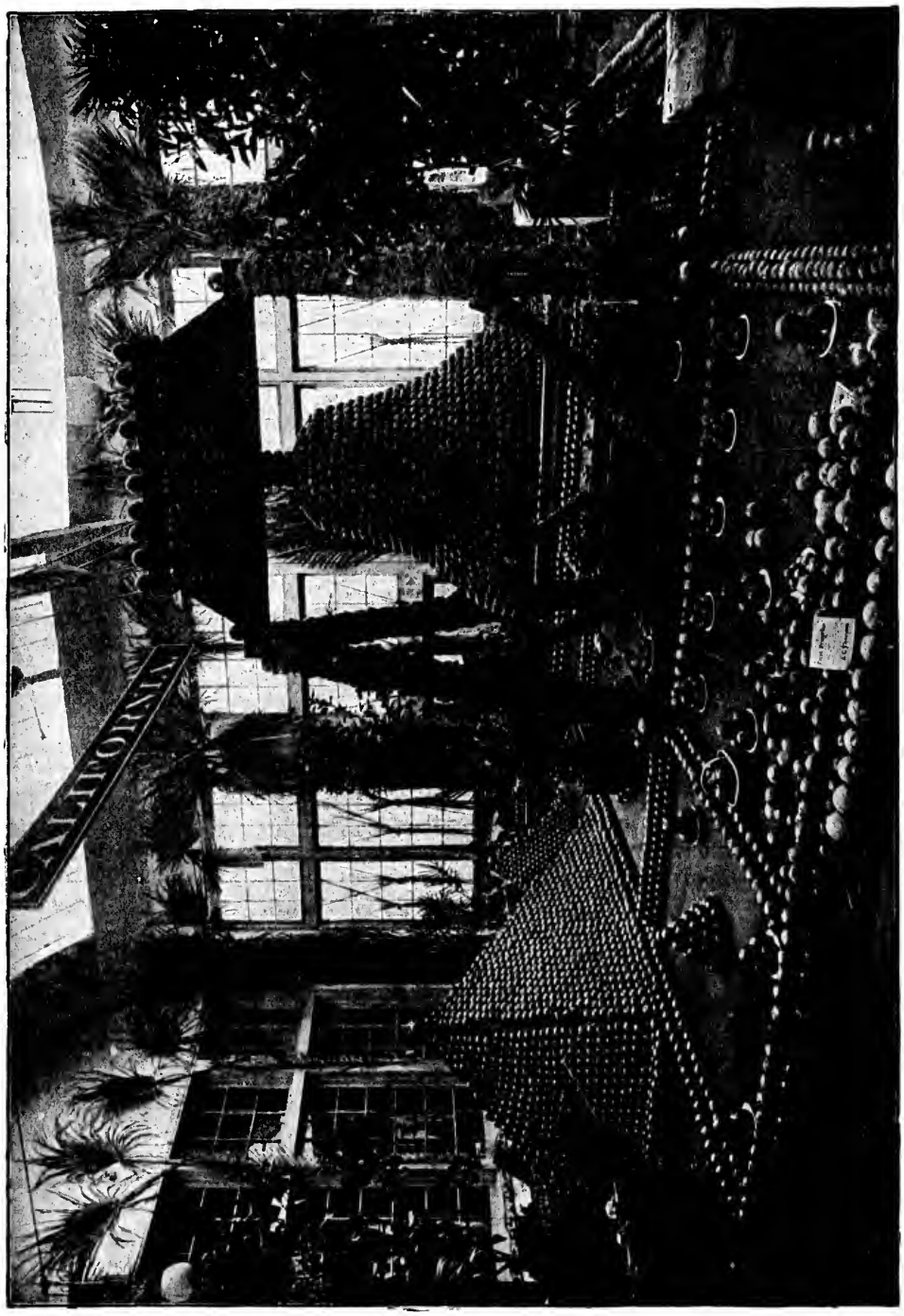
are "Mme. Carnot," "President Constant," "Duchesse d'Orleans," "Lyonnais," "Duchess of Connaught," "Mabel Morrison," "Earl of Dufferin," "Beaute de l'Europe," "Mme. Victor Verdier," "Louise Odier," "Reine Marie Henriette," and "Caroline Testout."

Some new clematis, now seen in America for the first time, is placed near the western entrance. This attracts much attention, as do two varieties of roses "Rugusa," white and red, from Baron Veillard, of Orleans; and the same nurseryman exhibits 12 specimens of the new varieties of clematis, "Mme. Edouard Andre." Crossing the western entrance and proceeding south the observer is struck with the plats of more roses sent from M. Paillet, of Chatenay, near Paris. Here are nearly 200 teas and hybrids, all of which were in flower during the summer months. Among them are "Mme. Honore Defresne," Souvenir d'un ami," "La France," "Jacqueminot," "Pauline Labonte," "Rubens," "Gloire de Dijon," "Merveille de Lyon," "Capt. Christy," and others that are as well known.

The southern end of the building west of the southern entrance is planted almost entirely with spruces, 150 varieties in all, from Honore Defresne & Son, Vitry, near Paris, (one of the largest and best known nursery firms in the world,) among which are Cedrus, Libani, pendula, Juniperus hybernica, Abies commutata, glauca, Taxus aurea, Abies Remonti and others. In the plat east of the southern entrance are set out 150 shrubs and evergreens, among which are the Magnolia grandiflora, Skimmia japonica, Ligustrum coriaceum, Eleagnus Simoni, Andromeda japonica, Nandina domestica, etc.

The palms around the Woman's Building are all of the hardy variety of the French Mediterranean shore. There are thirty varieties in all, the choicest being the Brahea Roezli, or silver palm, Cocos Australis, Phœnix Canariensis, and Jubea spectabilis, from M. Martichon, a landscape nurseryman of Cannes.

These plants are shaded slightly by a row of catalpa excelsa trees, which runs all around the building, and by a single black oak at the northern entrance. Between the grass and the building there is a space of about four feet which is filled in with familiar summer foliage and flowering plants.



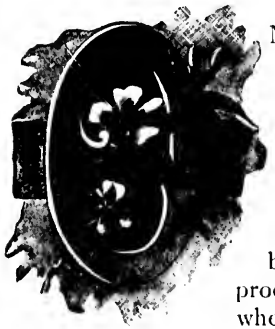
LIBERTY BELL IN ORANGES, CALIFORNIA EXHIBIT IN HORTICULTURAL BUILDING.

LIBERTY BELL IN ORANGES, CALIFORNIA EXHIBIT IN HORTICULTURAL BUILDING.

CHAPTER X.

A RAMBLE AMONG FRUITS AND WINES.

Other Exhibits in the Horticultural Building—Side by Side with the Celebrated and World-Renowned Vintages of Europe Are Shown the Products of American Vineyards—Unique Features of Some of the Foreign Displays—Missouri, Ohio, New York, and California Are Well Represented—Fruits from Nearly Every State in the Union—Enormous Apples, Pears, Peaches, Plums, Cherries and Prunes from Idaho, Colorado, Oregon and Washington—Unsurpassed Displays of Thirty Kinds of Fruits by California's Great Citrus Fruit Exhibit by the State—Towers and Pagodas of Oranges and Lemons from Southern California Attract Great Attention—Many Fine Displays of Preserved, Dried, Canned and Crystalized Fruits and Raisins from Southern California—Big Display of Seeds by Peter Henderson, of New York—Great Array of Garden Implements, Tents, Greenhouses, Lawn Mowers, Fences, Statuary, Etc.



ONE of the most interesting and instructive special features of the Exposition is the exhibit of wines of the World in the south pavilion of the Horticultural Building, known as the division of Viticulture, in charge of H. M. La Rue. The exhibits, especially those of foreign countries, are shown on a lavish and magnificent scale, which might have been expected when it is known that a good many millions of dollars are annually spent by Americans for foreign wines of all kinds and that the producers can afford to spend a mint of money on advertising when it is known that they sometimes receive a good many more hundred per cent for their wines in America than they do for the same productions in their own lands.

The Californian claims, with a great deal of force and argument, that the conditions of his soil, climate, and methods resemble those of the foreign countries that produce the most distinguished wines. The manufacturers of wines in Missouri and Ohio presume to say that their wines are not only as choice as those of California, but that, while they may not at all resemble those of either France or California, they contain all the elements and virtues of a perfect beverage. New York and New Jersey are not behind in proclaiming the excellencies of their native wines.

There is nothing, probably, concerning which there is such a diversity and distribution of taste and opinion as there is regarding wines. There are those who claim that nothing genuine comes from abroad unless it be certain brands of claret and a few champagnes and whites. There are those, too, who maintain that no wines made in America or Australia are fit for a gentleman's table.

Four-fifths of the space on the ground floor of the south pavilion is allotted to foreign countries. Germany succeeded in getting 4,000 square feet. Among its wines are the famous Schloss Johannisberger, Steinberger, Gräfenberg, and Rüdesheimer, and others from the eastern bank of the Rhine. The display is made under the auspices of German Consuls and is a collective one; but there has been a considerable sum spent upon it, as the importation of its superior wines is on the increase. There is also a splendid lot of Mosselles, including the Brauneberger and other excellent ones with long names. The German exhibiters also have a big wine cellar in operation near by which shows all the processes of manufacture and storage.

Austria has a small space in which that country shows its Tokays, its Meograds, its Muscadines, and eight varieties of Ansbruch, which is regarded by many as the most delectable wine of Austria.

France, as usual at all expositions, has a most magnificent exhibit, in which no money has been spared to make it attractive. In the red wine section there are exhibited more than sixty varieties of superior clarets and a large number of Burgundies and Sauternes. The French exhibit occupies about 2,500 square feet, and the cabinet work, which contains the varities aforesaid, is pretty and costly.

Italy has about 1,000 feet, in which it exhibits its best dry reds and some of its sweets. There are exhibits from Arcetri, near Florence, and a number from Piedmont, and notably the Barolo, Barbera, Nebbiolo, and Braccheto. Central Italy shows some of its famous wines, which, however, are not often seen in this country, such as Montefiascone, which possesses a delicious aroma, and the Albano, which is also a crack wine among the Italian aristrocracy. There are also red wines from the foothills of Vesuvius, and both white and red wines from the Island of Capri.

Spain has been given a large space, fully as much as that alloted to Germany. The wines shown by Spain are mostly sherries from the district near Cadiz and from the Provinces of La Mancha, known as Val de Penas, which, in the opinion of many, is as fine a wine as is found in the world. There are also wines from the Provinces of Granada, known, generally, as Malagas, Muscatel, and Malvoisies. In addition there are red wines from this same district, known in Spain as Tinto de Rota and Sacra. The well-known Amontillado is arrayed handsomely behind locked glass doors.

Portugal asserts its presence by a display of ports from the Alto Douro district and wines from the Island of Madeira. Of the former there are four white ports and six blacks, the latter being the Souzao Aragonez and Pegudo. Of the white ports there are the Ferral Branco, Malvazia, Malmsey, Dedo de Dama, and Muscatelle de Jesus.

Switzerland also makes a small display, and also Russia and some other European countries which are not recognized generally as wine-making sections.

New South Wales occupies space at the eastern end of the pavilion and makes a very creditable display. The champagnes of France are shown at different places in the viticultural section, but the most of them are in the second story

near the wines of Portugal and Italy. American wines are represented by the truest brands from New York, Ohio, Missouri, California and other noted wine-producing states.

The formal opening ot the German wine exhibit took place in the south pavilion and wine cellar adjoining on the 21st day of June, Imperial Commissioner Wermuth presiding. The exhibit in the pavilion ranks with that of France and Spain, while its feature of a wine cellar, which stands in the southern portion of the southern court, is an instructive part of the whole. Its interior is the reproduction of a German wine cellar with Gothic columns, and the samples of the liquid from the Fatherland are arranged on tables and stands in groups according to the different vintages and the districts in which they are produced. Entering the main door of the pavilion, in a half circle on the east side, a number of panoramic paintings of the districts represented in the exhibit attracts the attention of the visitor. These panoramas are the Rhine, as seen from the Niederwald; Trarbach on the Main; Neustadt on the Haardt, and Trier on the Moselle. These are the works of Artists Herwarth and Joseph Rumelspacher, of Berlin. Then there are panoramas of the Necker Valley, views from Esslingen to Constadt, Rappoltsweiler (Alsace), and Mullheim in Baden, painted by Freudemann and Richter-Lefensdorf, both of Berlin. These panoramas are works of art reproduced from nature. They were completed in Germany and mounted here. The arrangements for perspective, etc., are very clever. The paintings are hung in niches outside the building proper, with full exposure to daylight, while the semi-circle inside of the pavilion is kept in twilight. The grooves in front of each panorama are decorated in plastic manner with vines growing on poles. These are, of course, artificial decorations, the grapes being of glass. The walls to the west of the building are decorated with two maps of the wine-producing districts of Germany.

Visitors to the Horticultural Building may look upon the deadly Mexican aguardiente. There are many other kinds of Mexican wines and cognacs in the display, too, as well as licor de naranja, which is orange juice, and a good display of fruit pastes and jellies. There are agaves, cocoanuts, grape fruits, mosses and ferns also in the display. Some dried bananas are shown, just to prove that bananas can be dried. The Mexicans take much pride in the purity of their wines. Commissioner J. Miguel Carabay is in charge of the exhibit.

The fruit exhibit which occupies the northwestern and southwestern curtains of the Horticultural Building is in charge of Charles Wright. Nearly all of the States and Territories and Canada and Australia are represented. Florida and Southern California, notably the latter, make splendid displays of oranges and lemons and other citrus fruits. The Southern Californian counties of San Diego, San Bernardino, Riverside, Orange, Santa Barbara and Los Angeles kept up their orange and lemon exhibits until September. The latter county had a tower of the golden fruit which contained nearly 14,000 oranges. It also had a monster Liberty Bell made of oranges and other designs. It also had at one time 1,200 plates and 600 jars of citrus and other semi-tropical productions—32 toothsome kinds in all.

Twenty-one states exhibited apples and other fruits and berries in their sea-

son. Sixteen states displayed canned, dried, preserved or crystalized fruits. Canada and New South Wales surprised all visitors by their splendid arrays of fruits. Then there were superior exhibits of flower and vegetable seeds, notably by Peter Henderson & Co., of New York, and Pitcher & Manda, of Short Hills, N. J. These were to be seen in the north pavilion, where there were also numerous exhibits of lawn mowers, sprinklers, fruit pickers, insect and other pest destroyers, fertilizers, garden fences, statuary, &c. Upon the lawns west of the Horticultural Building were various models of green-houses, and many kinds of lawn mowers and sprinklers at work. On the east of the building and in the Southern Court, were a large number of aquatics. In the gallery of the southern pavilion were a number of raisin exhibits from Southern California.

Jules Lemoine.

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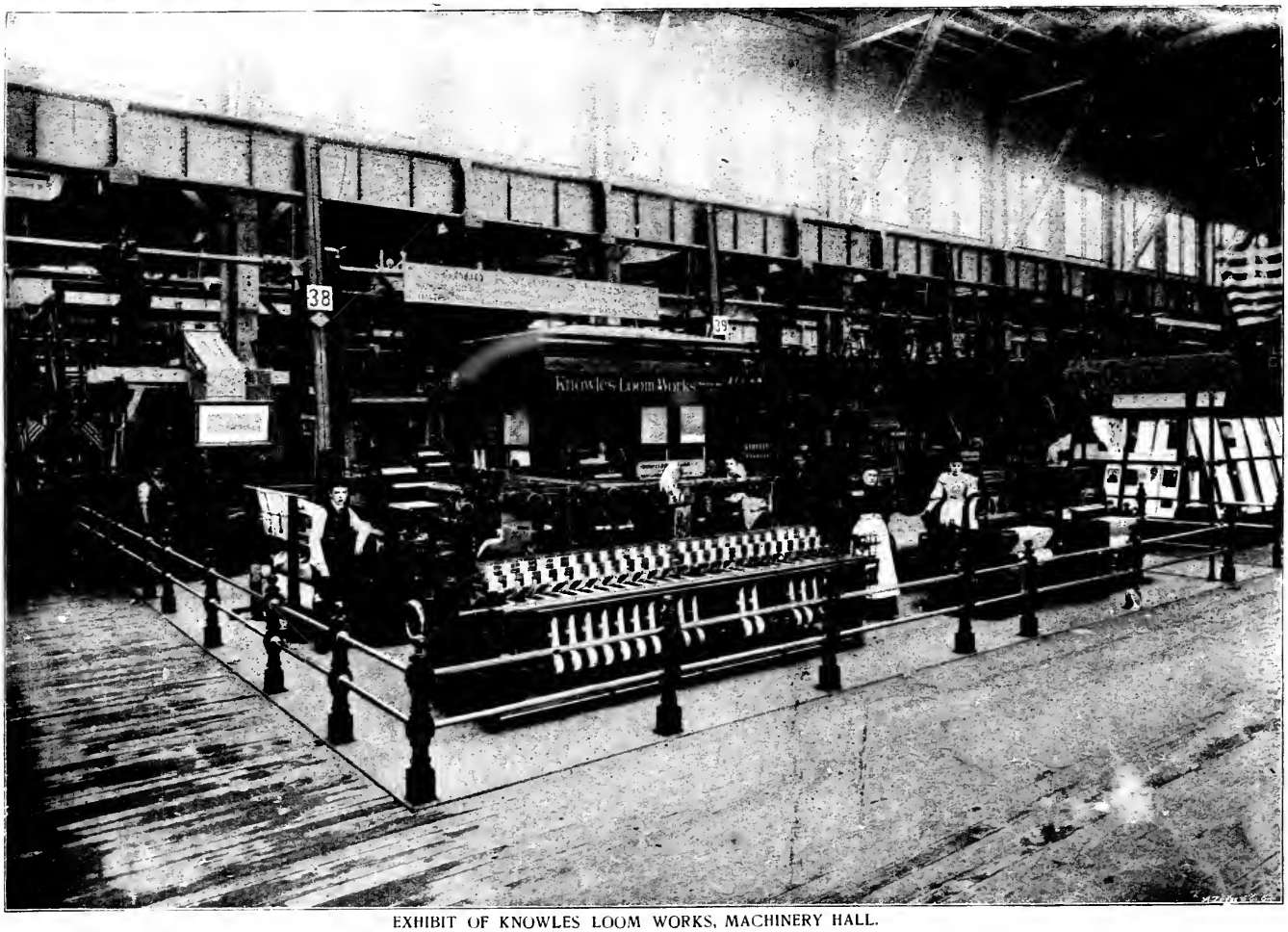

EXHIBIT OF KNOWLES LOOM WORKS, MACHINERY HALL.

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CHAPTER XI.

PALACE OF MECHANIC ARTS.

A Remarkably Beautiful Structure—It is 850x500 Feet and Cost $1,200,000—The Allis Engine the Largest in the World—An Aggregated 24,000 Horse Power—17,000 Horse Power Required to Provide Electricity—Two Dynamos Each With a Capacity of 10,000 Lights—Ten Engines Averaging 2,000 Horse Power Each—A Fly Wheel Thirty Feet in Diameter—An Engine Whose Combination of Iron and Steel Weighs 225 Tons—Its Wheel and Shaft Alone Weigh 100 Tons—Machinery of Every Description in Operation—Manufacturing Devices and Machine Tools by Thousands—A Highly Interesting Description of All the Engines and Boilers—How Many Things are Manufactured Right Before One's Eyes—Grier's Ingrain Lumber Machine—An Interesting Relic—A Striking Contrast—Sketch of Chief Robinson.

THE Palace of Mechanics Arts—or, as it is generally called Machinery Building—is regarded by many as the most beautiful of all. It is certainly a magnificent structure, and a model of symmetrical lines throughout. It is immediately south of the Administration Building and is midway between the lake and the western enclosure. It is 850 feet in length and 500 feet in width, and cost, with its annex and power house, $1,200,000. It has an aggregated 24,000,000 horse power, which makes it the largest power plant in the world. Of this 24,000 horse power, 17,000 is devoted to electricity, there being two dynamos, each with a capacity of 10,000 lights. These two dynamos are run by the renowned Allis engine, which has nearly twice the horse power of the famous Corliss engine which was one of the wonders of the Centennial, and the largest engine in the world at the time.

The power plant contains more than forty steam engines which operate 127 dynamos. Ten of the engines average 2,000 horse power each. The entire Allis combination of iron and steel weighs more than 225 tons. Its wheel and shaft alone weigh more than 100 tons. The fly wheel is thirty feet in diameter. Machinery of every description is seen in operation. Manufacturing devices and machine tools covering every branch of the business are completely shown. Machinery may be seen manufacturing other machinery and all sorts of articles appearing as one vast manufactory.

To a great many people there is no sight at the Exposition to be compared with the power plant. It consists of a vast aggregation of immense steam engines, covering a space 100 feet wide and 1,000 feet long, lying along the south wall of Machinery Hall and a good distance along the south wall of the annex. This space constitutes one-fourth of the whole floor.

All these engines, and fifteen more scattered through the other quarters of Machinery Hall, are regular exhibits, and yet they are not running merely for fun nor for show. Every one of them performs indispensable work. The Exposition needed over 5,000 arc lights and 120,000 incandescent lights and it had to have power to operate the acres upon acres of heavy machinery. It has it.

To begin with, power is distributed to the machinery in Machinery Hall by a vast system of line-shafting. That is, some of the engines are used to drive long iron shafts, on which are innumerable pulleys, all revolving fifteen feet above the floor, and every exhibitor who wants power throws a belt on the nearest pulley and helps himself. Now, there are six lines of shafting, each 766 feet in length, in Machinery Hall, making a total of about 4,600 feet, and there are six corresponding and continuous lines in the annex, having a total length of about 2,680, so that there is a grand total of about 7,280 feet.

Yet almost none of this force is derived from the power-plant proper. It is almost all furnished by engines located in different places around the building for that purpose. Accordingly the shafting is divided into eighteen sections and, as a general thing, each section is driven by its own engine, though some drive more. A Sioux City engine drives a section on each side of it, and a German engine drives three sections.

Many people will be interested to know what engines drive the line shafting. The English furnish one Galloway engine and two of Millar's engines, which drive all the English machinery in the building that requires power. The Germans furnish one Schichau engine, one Wolf engine, and one Grusonwerk engine, which, in a like manner, drive all the German machinery. The American engines and their minimum horse-power are as follows: Ideal tandem, 300; Bates, 300; Golden State, 200; Green, 225; Sioux City, 350; Payne's Corliss, 110; Erie City, 300, and Allis simple, 250.

Coming now to the power-plant proper, the engines that supply electric power are at the north end, then come those that supply incandescent lights, then those that supply arc lights, and then at the south end the air compressors, which include engines. The engines that generate power have an aggregate of 5,000 horse-power, and send this amazing energy over wires to the Administration Building to run the elevators, and to the Mines and Mining, Electricity, Manufactures and Agriculture Buildings to operate exhibits and do chores. It is distributed inside these buildings by line shafting; and, curious to relate, in the Electricity Building it is used to run the dynamos that are on exhibition there.

Such splendid service makes a list of these magnificent engines interesting. Their names and horse-power are as follows: Ball cross compound, 480; Armington & Sims simple, 400; General Electric triple expansion condensing, 1,000; Phœnix triple expansion condensing, 500; triple tandem condensing, 250; Phœnix simple, 250; E. P. Allis cross compound condensing, 500; two Woodbury tandems, 600 each; A. L. Ide simple, 200; A. L. Ide tandem compound condensing, 225; and McEwen tandem compound condensing, 220.

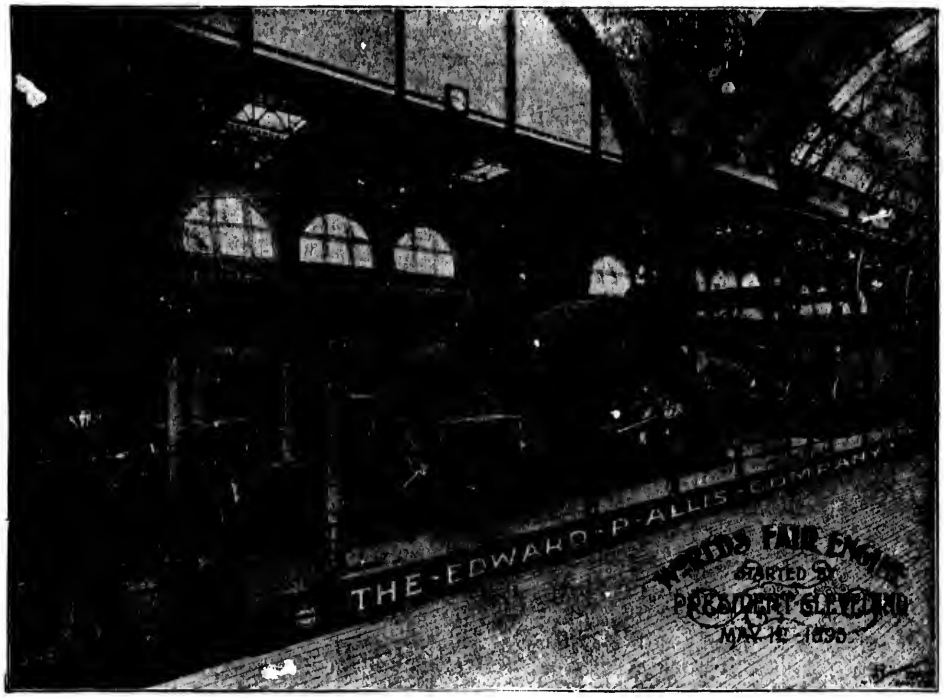
The greatest engines in the building, however, are nine that are devoted to producing incandescent lights for the grounds and buildings, and they are capable of furnishing 120,000 lights, though not quite so many are required. At the head of the list stands the E. P. Allis quadruple expansion condensing, with a minimum 2,000 horse-power, and a possible 3,000 horse-power. This is no doubt the greatest machine in the Exposition. The others are Fraser and Chalmers' triple expansion condensing, 1,000; four Westinghouse, Church & Kerr compound condensing, two of 330 each, and two of 1,000 each; Buckeye triple expansion compound, 1,000; Atlas compound condensing, 1,000, and McIntosh & Seymour double tandem compound, 1,000.

But the Exposition would be an uninviting place by night or on dark days without arc-lights, and the little giants that furnish this luxury are as follows: Two Ball & Wood simple, 150 each; two Ball & Wood tandem compound, 150 each; Ball & Wood cross compound, 200; Buckeye cross compound condensing, 300; two Buckeye simple, 125 each; Buckeye simple, 190; Buckeye tandem compound, 150; two Russell double tandem compound condensing, 506 and 216; Lane & Bodley cross compound condensing, 300; Lane & Bodley tandem compound condensing, 300; Lane & Bodley simple, 200; Boss cross compound condensing, 224; Atlas tandem compound condensing, 500; Watertown double tandem compound condensing, 250; two Skinner simple, 150 each; New York Safety simple, 150; three Russell simple, total 400; and Siemens & Hotske, horse-power not given.

Away down in the southern end of Machinery Hall are six machines which are not, properly speaking, steam-engines, as they are adapted to only one use. These are the steam air compressors, which supply the compressed air engines in the other buildings. One of these compressors is by Ingersoll Sergeant, one by the Rand Drill Company, and four by the Norwalk iron works. They furnish compressed air at a pressure of 125 pounds to the square inch, and it is conveyed in two six-inch iron pipes, one of which runs to the Mines and Mining Building and the other to the Transportation Building, to exhibit the utility of compressed-air engines in those departments.

But engines would be of no use without steam, and when the visitor steps through any of the south doors of Machinery Hall into the immense corrugated iron shed adjoining it he will be satisfied at a glance that there is no lack of steam. Such a battery of steam boilers was probably never constructed before, and the necessity of more steam than ever in consequence of the progress of electrical science looks as if Watt's idea was not exactly on the decline. At the first flush it looks as if the battery were a mile long, but inquiry shows that it is only about 650 feet in length. These boilers are also exhibits by seven different manufacturers and illustrate every new or good point in the construction of a steam boiler.

The boilers in the power house are furnished by eight exhibitors. Beginning at the east end of the boiler-house the arrangement, number of boilers and rated horse-power are as follows: Abendroth & Root, four boilers, 1,500 horse-power; Gill Water Tube Boiler Company, four boilers, 1,500 horse-power; Heine Company, eight boilers, 3,000 horse power; National, four boilers, 1,500 horse-



THE ALLIS ENGINE.

power; Campbell & Zell, nine boilers, 3,750 horse-power; Babcock & Wilcox, ten boilers, 3,000 horse-power; Stirling, four boilers, 1,800 horse-power. In the annex are four Heine boilers of 1,500 horse-power, three Climax of 2,000 horse-power and two Stirling of 900 horse-power. These boilers, while separated from the main boiler room by the south entrance to Machinery Hall, are connected with the main system the same as any of the other batteries. The Jumbo of the boiler-house is a Climax of 1,000 horse-power.

The Abendroth & Root boilers have 126 tubes, four inches in diameter, by 18 feet in length, arranged in courses 14 wide by 9 high. They have 7 drums 14 inches in diameter, by 20 feet length, and one header 30 inches in diameter by 12 feet in length. The Gill boilers have 360 tubes, 4 inches in diameter, 18 feet in length, 3 steam drums, 42 inches in diameter, by 21 feet long. The National boilers have 180 4-inch tubes, 18 feet long, and 3 steam drums 36 inches by 20 feet. The Campbell and Zell boilers have 236 4-inch tubes, 18 feet in length, 3 30-inch water drums 19 feet in length, and one steam drum 52 inches in diameter by 12 feet length. The Babcock & Wilcox boilers have 126 4-inch tubes 18 feet long, arranged in courses 14 wide and 9 high, a mud drum 12 inches in diameter and 8 feet 6 inches long, and two steam drums 36 inches by 18 feet. The Climax 500 horse-power boilers have a main shell 42 inches in diameter by 29 feet high. The main shell is ¾ of an inch thick, with vertical seams welded. Each has 475 tubes 3 inches in diameter and 11 feet 6 inches long before bending.

The monster 1,000 horse-power has a main shell seven-eighths of an inch thick. It is 56 inches in diameter and 35 feet three inches high. It has 864 3-inch tubes which were 12 feet 6 inches long, before bending. It is capable, it is said, of developing 1,800 horse-power.

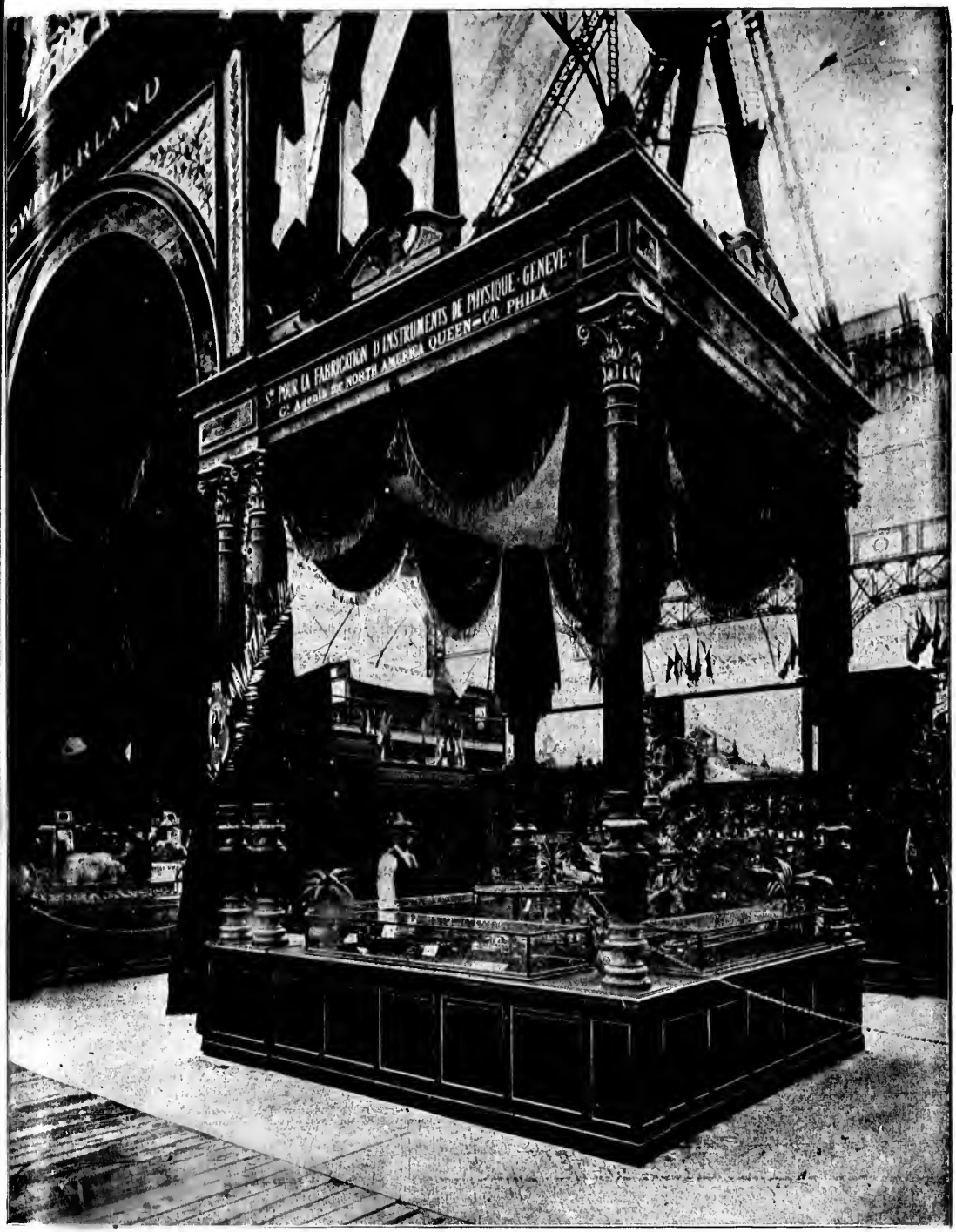
These boilers, with the exception of one Campbell & Zell and the three Climax, are arranged in batteries of two. Each pair of boilers feed steam into one common pipe which delivers into the 36-inch steam headers under the gallery floor. Of these headers there are seven; five in the main boiler plant and two in the annex, the longest being 150 feet in length. The headers are connected by pipes ten inches in diameter, except that between the main boiler plant and the annex, which is twelve inches in diameter. These connecting pipes are arranged with elbows and nipples to allow for expansion. The expansion in so large a system is considerable. If the header had been made in a single piece the expansion in the 800 feet in length would have been about twenty inches. Such an amount would have been utterly unmanageable. By means of the connecting pipes the same effect is produced as though there were but a single header. The main headers are securely fastened in the center to large masonry foundations. They are further supported every few feet by rollers placed on foundations of masonry. These rollers permit the headers to expand freely in each direction.

A four-inch drain pipe runs the whole length of the boiler plant and discharges into a large tank outside. The headers are connected with three two-inch drain pipes, so that in case of emergency, if a battery of boilers should get to foaming, for instance, they can be quickly emptied. The water of condensation is

carried back into the boilers by Westinghouse loops. The Westinghouse loop is simply a pipe carried from the bottom of the header up some distance above the top of the boiler, thence across to the rear of the boiler-house down below the water line, and then into the boiler through an ordinary check valve. The height of the vertical pipe is so calculated that the weight of one column of water in it added to the pressure in the header, which of course is somewhat less than the boiler pressure, shall be sufficient to overcome the excess of pressure in the boiler and so carry the water of condensation and entrained water through the valve and into the boiler. Water glasses are placed on the headers so that if water should accumulate by any chance it can be readily discovered.

The boilers are fed by pumps and injectors of various makes, all being listed as exhibits. The Abendroth & Root boilers are fed by means of six Watson injectors and two Deane pumps 7½x4½x10 inches. The Gill boilers are fed by two Korting injector and two Barr pumps, one 10x6x12 inches, the other 10x6x10. The pumps supplying these boilers are regulated by a Thomas automatic feed water regulator which keeps the water at a constant level without the intervention of an attendant. The Heine boilers are supplied by eight Penberthy injectors, two Knowles pumps, 10x5x12, and two Blake pumps, 8x5x12. Four Hayden & Derby injectors and two Davidson compound pumps 12 and 20x10½x20 are required to supply the National boilers. The Zell boilers are supplied by six Nathan injectors, one Cameron pump, one Laidlaw & Dunn 7½x4½x10, one Wilson Snyder 14x8x18, one Canton, one Worthington and one Boyts Porter pump. The Babcock & Wilson boilers are supplied by Hancock inspirators and three by Snow pumps; one is compound 8 and 12x7x12, the others are 10x5x10 and 8x5x10 respectively. Two Buffalo pumps 10x6x10 and 7½x5x8 and one Gould pump run by an Ideal engine and Schaefer & Budenberg injectors are used to feed the Stirling exhibit. In the annex two Marsh pumps supply the Heine boilers; the Climax boilers are fed by one Blakeslee and one Smedley, and the Stirling boilers are supplied by one Hall and one McGowan pump. Thus intending purchasers or any one interested in power plants may see most of the leading injectors, inspirators and pumps in practical operation and judge of their relative merits for himself. On every make of boilers is a feed header into which the pumps of those boilers deliver. From this header separate pipes are run into each boiler.

Oil is the fuel used. The oil is atomized by a steam jet as it is discharged from the burner into the furnace. The various makes of oil burners are shown in operation. Any one interested in comparing the various makes will find twelve Reid burners under the Abendroth & Root boilers, sixteen under the National and forty-six under the Campbell & Zell; thirty Larkin burners under the Babcock & Wilcox and twenty-eight under the Climax; sixteen Arms burners under the Gill boilers. The Heine boilers use seventeen Graves, sixteen Burton, eight Wright and twelve Reid burners; the Stirlings use eight Burton and eight locomotive burners. The oil is fed from an oil vault half a mile from the boiler house. Two mains run from this vault into a five inch header which runs the entire length of the boiler house. This header is tapped frequently and every make of boilers is sup-



PAVILION OF SWITZERLAND—BUILDING OF MANUFACTURES AND LIBERAL ARTS

plied through a separate pipe. The pressure as allowed by the underwriters, is six pounds. Running along the tops of the boilers from one end of the boiler-house to the other is a two and a half inch steam pipe with valves between each make of boilers. A two-inch steam pipe feeds into this from each boiler. From this two and a half inch pipe steam is carried into the oil burners for atomizing the oil. As steam is necessary to burn, the oil pipe obviates the necessity of using wood to start up any battery of boilers after it has been allowed to cool down so long as any other battery has steam up. The Gill and Campbell & Zell boilers have independent steam connections with the burners in addition. The safety valves, which are the ordinary pop valves, are set at 125 pounds.

The entire room is in charge of George Ross Green, who is known as the superintendent of the boiler house. His rank is that of second assistant engineer. Each exhibitor furnishes firemen and water tenders to care for its boilers. They work in watches of eight hours each, one or two men being required, according to the number of boilers in the exhibit. In addition the exposition furnishes a gang of thirty men under three foremen, who look after cleaning, oil and oiling, repairs, alterations and so on. One man's duties consist of watching for smoke and promptly reporting any offenses in this particular. He sits in a little house back of the boiler-room where he has a clear view of all the chimneys. Electric communications with every furnace is provided, so that as soon as a chimney begins to smoke the fireman is warned by a bell to look after the matter. Another man looks after the valves, of which there are 108 on the headers alone, and a grand total of 1,200 in round numbers in the boiler house.

Mr. Green has devised an ingenious yet simple scheme for keeping a record of the condition of the boilers and engine. On the north wall of the boiler-house near the east end of the gallery, hang two huge blue prints. On one is a diagram of the boiler-house and machinery hall, showing the location of every boiler and engine, each being numbered. The key to these numbers is given on the bottom of the blue print. A brass peg is screwed into each spot occupied by a boiler or engine. At one corner are stacks of red, white and black tags about half an inch wide and two inches long. A white tag hung on a peg indicates that that particular engine or boiler is working; a red tag shows that the boiler or engine is hot and ready to be put in operation at a moment's notice; black shows that the engine or boiler is not in use for some reason. Whenever an engine or boiler is started or stopped the foreman on duty goes to the diagram and hangs a suitably colored tag on the peg which stands for that engine or boiler. Thus the record is constantly kept up to date. On the second blue print is a diagram of the header and header valves with similar pegs and tags. Whenever a request is made for steam for an engine the foreman in charge sends the valve man to open the valve and hangs a white tag on the proper peg to show that it it open. In changing watches the foreman coming on duty can see at a glance just how things stand. This saves a vast amount of labor in making out lengthy reports at the end of each watch.

An elaborate record is kept in the boiler-room showing when each boiler is

started up, when shut down, when valves are opened and when closed, the steam pressure, furnaces that smoke, repairs made and so on.

All who are particularly interested in this chapter must understand that there are too many machines to mention—all kinds of printing presses, cotton thread making machines, pin and nail making machinery, looms of many descriptions, paper making machinery, planers, matchers and molders, jointers, shaping, mortising, boring, and dovetailing machines, spinners, carders, more than 200 tool-making machines, and hundreds of others that cannot be mentioned. Towels, napkins, handkerchiefs, and many other articles are made while the visitor waits, such as gold bead necklaces, watch chains, and a variety of other articles to the number of two dozen in Sec. 32 on the north side of the Hall by Samuel Moore & Co's. gold bead machinery. Four sizes of beads can be made on the same machine by changing the dies. The machine is about four feet in height and about sixteen inches in width and breadth. A plated tube through which a small brass dumbbell wire to form the connecting links has been thrust is introduced into the shaft, which is hollow, until it is caught by the dies. These dies work on the end of L shaped levers, which are operated by a double cam on the main shaft. The dies are opened by brass springs. They work in pairs alternately, two being placed vertically and two horizontally. On the face of each die is a series of eleven graduated hemispherical cavities. On reaching the first pair of cavities a section of tube large enough to form a bead is cut off and partly formed. When the shaft has made a half revolution the vertical dies open and the lateral dies come together, cutting off a section of the wire to form the connecting link of the next bead. These dies are moved outward by a cam just the length of the bead, thus drawing in another section of tube. The partly formed bead is thus passed along through the series of cavities by the lateral motion of the horizontal dies, each pair being smaller than the preceding until the last, when it passes out of the machine a perfect bead. The beads are held firmly together by the dumbbell wire. The capacity of the machine is from six inches to one foot of beads a minute, according to size. The string of beads is now cut up into suitable lengths, tied up in stout cotton cloth and placed in a shaker containing a strong solution of soap-suds. It is shaken for about fifteen minutes and is taken out polished. After being dried in sawdust, the chain or necklace is ready for sale.

An interesting relic of colonial days is shown in the north aisle of Machinery Hall by the Campbell Printing Press Company. It is nothing less than the first printing press ever used in New Hampshire. It was made by Thomas Draper in Boston, 1742. Daniel Fowle purchased it Oct. 17, 1756, and it was afterwards owned by John Melcher, the first State Printer in New Hampshire. Later it passed into the possession of Frank W. Miller of Portsmouth and finally became the property of the company by which it is exhibited. Only a few portions of the original wood have had to be renewed. The plate is but half the size of the bed plate, so it was necessary to take two impressions to print the full size of the form. It forms a striking contrast with the huge perfecting presses exhibited on either side.

In the west end of Machinery Hall is Grier's ingrain lumber machine that

was patented last October. Basswood board, worth $30 a thousand feet, passed in at one side comes out quarter-sawed oak, worth $60 a thousand feet, on the other side. That is, it looks like quarter-sawed oak. The essential feature of the machine is a drum thirty-six inches in diameter and thirty inches face. The design is first painted on the face of the drum, the champs being painted black on the pattern. The grain is left unpainted. The drum is then hung up on end and set with steel knives or type. These type are 1½ inches deep by 1-32 of an inch thick, made of high grade steel. They can be cut up in widths from ⅛ inch to 1 inch. The operation of placing them on the cylinder is something similar to typesetting, the knives being held into position by a clamp. When the drum is filled with type cement is poured into the interstices. This holds the knives firmly in place. The machine is capable of taking in lumber from ⅛ inch to 6 inches thick. It is drawn through by means of a feed roller ten inches in diameter. After passing over the drum the lumber next passes over a filler pan containing a specially prepared filler, which is pressed into the cavities made by the knives by two smooth, steel geared rollers. The board is held down against the filler rollers by another feed roller placed directly above them three inches in diameter. Any surplus or filler is removed by a scraper, a steel blade thirty inches in width. The adjustment for various thicknesses of lumber is made by four screws operated by bevel cog gear. The drum makes three revolutions a minute. It has a maximum capacity of 60,000 feet a day of ten hours. Fifteen varieties of wood can be imitated on this machine, such as oak, ash, bird's-eye maple, mahogany, cherry, and Hungarian ash.

No man ever leaves the Machinery Building a bit disappointed. If he surveys all that is to be seen carefully and intelligently he has obtained an amount of information concerning mechanic arts that he had never dreamed of.

The Krupp exhibit in Machinery Hall represents samples of mining machinery, powerful ore crushers and grinders, also improved assaying machinery. A very interesting exhibit is made by a Berlin firm which constructs machines for the manufacture of safety matches and match boxes. These are the matches which can only be ignited on the surface of the box they are packed in. Both box and match are prepared which a certain chemical substance. The manufacture of these matches and boxes is shown here in a practical manner. One person can work a single machine, and in Germany this is mostly done by girls. The process for the manufacture of the boxes is started by a machine which does the shaving of a block of wood (cottonwood) into very thin sheets, then another machine does the cutting, folding and labeling of the 36,000 boxes per day. Two peeling machines can cut 24,000,000 matches out of prepared blocks of wood per day. The dipping process—placing the chemical preparation on one end of the match—is also done by a very ingenious contrivance, whereby 2,200 matches are dipped. To prevent the matches sticking together they are placed in a frame with a holder for each one. Thus the process is facilitated, and one operator can dip almost two million matches per day. Although poplar and cottonwood are chiefly used in Germany, the process at the exhibit is being demonstrated with willow. Another interesting

feature of the process of the manufacture of matches is the filling of the boxes. With the aid of automatic machines a girl can fill 1,800 boxes per hour.

The agricultural part of the German machinery exhibit is represented by kneading and mixing machines; machinery for manufacture and working of paper by combined rolling and friction calenders with from ten to twelve rollers ninety inches on surface, and a downward pressure of fifty tons on each end of the journals; these mammoth calenders being driven by two twin engines.

The electrotyping process for rotating printing presses is demonstrated by an Augsburg firm. Prominent German illustrated papers, such as the *Fliegende Blaetter* and *Leipziger Illustrirte Zeitung*, etc., use electrotypes for their rotating presses instead of stereotypes. The single and double page ruling machines exhibited by a firm from Leipsic is of interest to the representatives of the bookbinding trade and to manufacturers of stationery goods.

Printing Press Row in Machinery Hall is one of the greatest attractions. It stretches along the north aisle just west of the north entrance, and is one of the great centers of attraction. It contains two Hoe, three Goss, two Potter and one Scott press, which are used to get off part of the last edition of five afternoon papers. The sight of these marvels of mechanism biting into a continuous roll of paper and throwing off printed papers, folded and bunched faster than can be counted by the spectator, is a decided novelty to the majority of visitors.

Readers of newspapers who do not know how they are printed can see the entire operation from the stereotype-room to the newsboy, for the stereotype plates made from papier-mache matrices are made in an isolated building just south of the west annex of Machinery Hall, and the presses are "dressed" in full view of everybody. Newspapers nowadays are not printed direct from type, but a papier-mache mold or matrix is made from the type and the stereotype plate is cast from it. These matrices are generally made in the city and brought to the park by special messengers and taken to the electrotype-room. The matrix is made as follows: Several sheets of water-soaked paper, something like blotting paper, with waste between them, are laid over the form (as the type is called when it is arranged in columns and held together in a steel frame). Two men with long-handled brushes of stiff bristle drive the paper down on the type and thus secure a deep, sharp impression. Some papers secure the same end by pressure in a press. A steam table quickly dries the paper and makes it hard but flexible, so that the matrix, as it is now called, may be curved so as to fit into the casting-box.

The stereotype-room at the World's Fair probably contains more different kinds of stereotyping machinery than any similar room on earth. Its equipment comprises full sets of Hoe, Bullock, Scott, Goss, and Potter stereotyping machinery, all working at once. Lack of space and insurance precautions compelled the authorities to put the stereotype-room in an out-of-the-way building, so that this very interesting feature of a newspaper is not on general exhibit. When the matrix reaches the room it is placed in a casting box, a ladleful of molten type metal is dumped into the box, and the plate is cast, curved to fit the cylinders of

EXHIBIT OF MONTAGUE AND FULLER.

the press. Before it goes to press, however, the plate is trimmed and made of uniform thickness.

The next process is to dress the press; that is, place the plates on the cylinder in their proper order. When this is done the paper is run through the press, which is put to its full speed, and folded papers begin to drop out.

One of the presses shown runs four, six, eight, ten, twelve, fourteen, sixteen, twenty-four or thirty-two paged papers. On four presses, running six and eight pages, 48,000 papers an hour are printed; 24,000 on the ten, twelve, fourteen or sixteen pages, and 12,000 on the twenty-four or thirty-two paged papers. Another style on exhibition runs 24,000 four, six or eight-paged papers an hour, and 12,000 twelve or sixteen-paged papers. The other runs 40,000 four-paged papers an hour, 24,000 six or eight-paged papers and 12,000 twelve or sixteen-paged papers.

Still another pattern shown only prints an eighteen-page paper, and does it at the rate of 16,000 an hour A little mathematical calculation will give figures to show the aggregate maximum number of papers that the presses can throw off in an hour.

Old William Carson of Philadelphia is putting in his summer at the fair pounding away at a high wooden carpet loom in the palace of mechanic arts, generally known as Machinery Hall. Mr. Carson is taking it very easy, though. He takes up one of his clumsy wooden bobbins, gazes at it in contemplative fashion, and gives it a flirt through the warp; then he jams the thread down with a heavy hand-bar, kicks a couple of levers, picks up another bobbin with another color of thread, and does it all over again, so the result is that the ingrain carpet which the venerable weaver is working does not grow very fast. He does not seem to care, though; he has the whole summer before him, so he goes through his weaving with mechanical precision and slowness. The fact is Willlam Carson has come to the fair to show how not to weave carpets.

Over against his queer old wooden loom there is a nervous and noisy machine that looks like a mass of steel painted green, a tangle of whizzing wheels, and a great array of tightly stretched strings. This machine is grinding out the gayest sort of a carpet; it outspeeds William Carson and his hand loom about 100 to 1. This machine is the latest model of a power carpet loom made by the Knowles company. It represents, perhaps, the least development in loom building, for power looms for carpet weaving are things of recent date. The process of its work is something marvelous to look upon.

This is not the only fine weaving machine in sight, though. The west end of Machinery Hall is full of them, and the way they buzz and rattle is something terrific. You can see pretty nearly any sort of a fabric being woven here if you will look around long enough. Some of the machines are wonderfully intricate. The folks in charge of them are willing enough to explain exactly how they all work, but after they have done you go away with a confused idea of a high framework full of wheels and levers and strings that behave in the most eccentric and unusual manner. Shuttles seem to chase around as crazily as an electric launch without a pilot.

Some of the looms weave dress goods, some silks, some cassimeres. But the most interesting of all are the ones that turn out souvenir ribbons and handkerchiefs. J. J. Mannion of Chicago has one that makes book marks. There are six colors of silk in these book marks. At the top of each ribbon are crossed American flags with the national shield between. Then there are two or three lines of lettering in blue and red with gold shading. Underneath this is a particularly fine view of Machinery Hall in delicate tints and beneath that a spirited view of a railway train. Every line of this is woven into the fabric, each speck of color in its proper place. The machine which does this is quite beyond the comprehension of an ordinary mortal. It is big enough to grind out a dozen ribbons all at once.

This loom is of the Jaccard type, as indeed all figure-weaving looms must be. Jaccard was a Frenchman, who lived about 100 years ago. He invented a figure-weaving apparatus that has never been much modified to this day. To the ordinary man the Jaccard attachment looks like a multitude of cords and copper rods. There is a large quantity of cardboard slabs too, all strung together and punched full of little round holes. It is on these slabs that the pattern to be woven is marked out.

It is the pattern making that afflicts the weaver's purse. There are only a few good pattern makers in the country, and, as Mr. Mannion says, they have the pleasure of fixing their own salaries.

The design for the little book mark with the picture of Machinery Hall upon it costs $350. A pattern designer first makes a large sketch in colors of the design he proposes to reproduce and then marks upon it a wilderness of little dots, which indicates exactly where the pattern cards are to have holes punched. Then he turns the matter over to a card puncher, who is not an artist at all, but just a coarse mechanic. If you want to see just what is the effect of the holes after they are punched you must go around to Machinery Hall and look for yourself—and after you have looked you will know less than ever before.

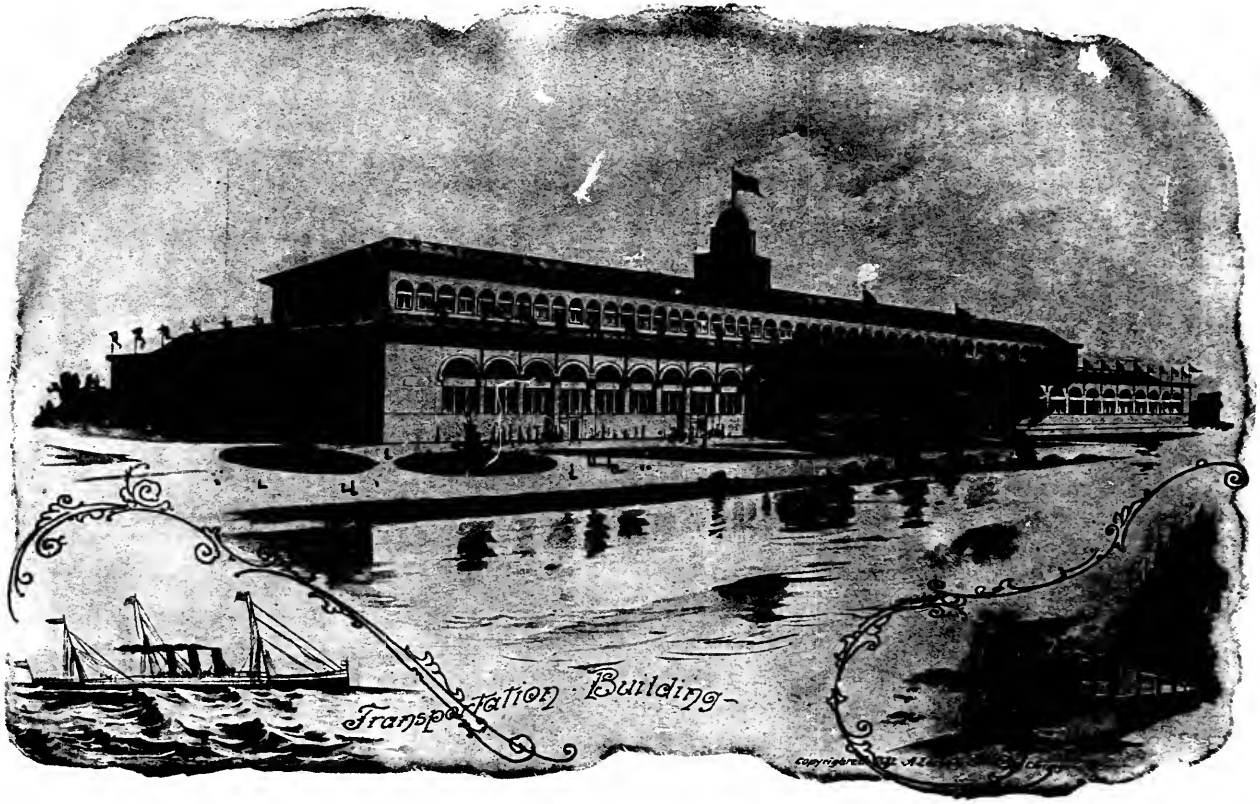
There are Knowles looms in this same section that make portraits of President Cleveland and Mrs. Cleveland, and others that turn out kerchiefs woven with large pictures of Machinery Hall. Then there is another, "the Empire skirting loom," which weaves an elaborately flowered fabric of silk in exceedingly dainty hues, The Crompton company has also a great array of looms. Some of them weave rugs five feet wide and some of them turn out Columbian souvenir ribbons all full of eagles.

Probably the fastest looms in the building are some Gingham weavers, operated by this company. There is one machine that makes brocaded silk of so fine a design that the aisle in front is blockaded by women all the time. Off in another corner the Willamantic Thread company has a fine array of spool machines whirling giddily, and the Star and Crescent company weaves all manner of towels.

These looms are all in charge of pretty girls. They do not look a bit like the overworked and abused factory toilers we read about in the story papers; they do not seem to have anything to do but stand around, look handsome, and answer questions.

Chief L. W. Robinson is only 51 years old, but has had much experience. He joined the navy when a youngster from New England, and was with Farragut at Forts Jackson and St. Phillips, at the city of New Orleans, the passage of the forts at Vicksburg in 1862, and other minor engagements in the Mississippi, also in the capture of nine blockade runners in the gulf. He was chief engineer of the Kennebec in the fight at Mobile Bay, Aug. 5, 1864, resulting in the capture of Forts Morgan, Gaines, and Powell, and the Confederate fleet, and received special mention in the report of his commanding officer for conduct during the engagement. Chief Robinson was promoted to the grade of second assistant engineer, rank of master, July 30, 1863, was present at the second surrender of Galveston, Texas, and was detached from the Kennebec at that place June 9, 1865, and was ordered north. From November, 1865, to December, 1869, he was attached to the U. S. S. Shamokin on the east coast of South America. After two years duty at the Philadelphia navy yards he made another cruise to the east coast of South America from January 1871, to February, 1874, on the U. S. S. Ticonderoga. He was then placed on special duty until Aug. 1, 1875, when, obtaining leave of absence, he occupied the position of chief of machinery at the Centennial, and since then has occupied high grades of duty.

CHIEF ROBINSON.


Transportation Building

CHAPTER XII.

TRANSPORTATION BUILDING.

Wonders in the Way of Railway Trains—An Object Lesson for Railroad Operatives—The Mahogany Train of the Canadian Pacific Railway—The Most Costly and Magnificent in the World—Its Engine Can Haul Ten Full Passenger Cars Sixty Miles an Hour—A Tremendous Engine From the London & Northwestern Railway of England and a Handsome Train. This Locomotive Can Haul Thirty of s Coaches, Each Containing Six Passengers, Seventy-Five Miles an Hour—Its Average Time Including Stops Fifty-Three Miles an Hour—Stevenson's Rocket on Exhibit—Also the Albion and Sampson Built in 1838—Also the Two First Engines Run over the Old Colony Road in the Thirties—Another Old-Timer Built in England in 1831 and Last in Service in Mississippi in 1890—It Puffed and Whistled Sixty Years and Once Fell Overboard and Staid under Water from 1868 until 1870—More Than Fifty Locomotives on Exhibition, Representing the Baldwin and Other Works—Three From England, Three From Germany and Four From France—The Baldwin Has an Engine That Has Made a Mile in 39 1-4 Seconds, or 92 Miles an Hour—All of the Baldwin Locomotives are Jacked Up so That Their Engines May be Seen in Motion—Nicaragua Canal Relief Map—Graphic Illustration of That Enterprise—Not More Than $100,000,000 Required to Construct It—Excavation Already in Progress on the Atlantic End—Great Exhibit of Bicycles—Pneumatics of All Sizes, Degrees and Conditions—The Old-Time Bicycle Practically Unexhibited—Safeties All the Go—Pennsylvania and New York Central Exhibit—Coaches, Buggies and Baby Carriages—Sledges, Carretas and Volantes—Marine Architecture—Sedans, Palenquins and Cateches—The Transportation Building and the Department Chief.

REAT crowds gather daily around the numerous objects of interest in the Transportation Building, from the thousand dollar baby carriages up to the enormous locomotives used upon many American and European roads of rail. Perhaps that which invites as much attention as any other of its kind is an engine which represents the highest type of locomotive used on the London and Northwestern railway of England. It doesn't look anything like the American locomotive, but its record for speed is far ahead of the railroad time-killers in America. This locomotive is devoid of the trappings which render symmetrical the American engine, but it is built in a manner to split the air at the rate of seventy-five miles an hour. This English locomotive has four drive wheels, each 7 feet 1½ inches in diameter. In front and behind these wheels are two-wheeled trucks. To the casual observer it would seem that the cylinders on either side of the locomotive are too small to perform great service. It is only when the observer steps in front of the locomotive and sees under it a third and ponderous cylinder that he understands why the Eng-

ish locomotive can speed over the country at the rate of seventy-five miles an hour and haul a train of thirty coaches.

The name of the English locomotive is "Queen Empress." Its big drivers and their location with regard to trucks is similar to the Lord of the Isles, the old locomotive which is being shown as a relic. The new type apparently sticks to the old form. On the Queen Empress there is no "cow catcher," neither is there a cab to shelter the engine-driver from sunshine or storm. He must stand on an iron platform and direct his engine with the same lack of protection as characterized the locomotives built in the time of Richard Trevethick. The big locomotives

ENGLISH LOCOMOTIVE "SAMSON" MADE IN 1838.

on the London and Northwestern make an average time of fifty-three miles an hour, including stops. In some instances these stops are six minutes each. In addition to the Queen Empress and two passenger coaches, five covered freight cars and an employe's caboose, which ran over the New York Central as a special fast train for the Fair, and which came into Jackson Park over the Baltimore and Ohio road, there are in the London and Northwestern's exhibit full sized models of early and famous locomotives. One is Stephenson's Rocket, which was constructed in 1829, and the other, Richard Trevethick's road locomotive, which was built in 1833. This latter was the first locomotive to which the principle of high pressure was applied.

There are other old-timers that are never overlooked—the Albion and Sampson, which came from Nova Scotia on flat cars operated by the Canadian Intercolonial railroad. The Sampson was built near Darlington, England, in 1838. The builder was Timothy Hackworth, grandfather of T. Hackworth Young, who is in charge of the locomotive exhibit at Jackson Park. This engine was shipped at once to Nova Scotia, where it remained in service until a few years ago. Like all old-fashioned locomotives it is cabless and without a "cow catcher." Motive power is applied to the rear drive wheel by means of cylinders. placed upright at the rear end of the boiler and directly under the seat occupied by the driver. The origin of the Albion is a mystery. All that is known of her is that she is English built and that she was in service in Nova Scotia many years. Her record is now being looked up, to ascertain when and by whom she was built. The cylinders of the Albion are placed at an angle about midway of the boiler, connection being made by the piston on the center drive wheel. These locomotives are much older and outrival as curiosities the old Progress, the first engine that ever ran in Chicago. The passenger coaches of about the same date as these old locomotives are quite as primitive as anything of the kind in existence. They were roughly built to accommodate four passengers, and are treasures in the eyes of experts interested in the development of railways. Two other engines which form a marked contrast to those of modern make came from the Old Colony railroad of Massachusetts, and were the first to draw regular trains on that road. For years they have been in the shops at Fall River, and were sent out without even a new coat of paint. They closely resemble the old pioneer from the Peoria road, except that they are much more rickety and one of them is much smaller. The maximum speed of these engines was fourteen miles an hour. Standing alongside of one of those for which ninety-five miles an hour is claimed, it shows to advantage the marked improvement made in the last few years.

THE BRAKEMAN ON TRANSPORTATION BUILDING.

Another interesting relic of early railroading in this country is a locomotive of English build brought to the United States in 1836. For several years it was operated on the Natchez and Hamburg road, now part of the Illinois Central system. In 1868 it was taken to Vicksburg, but shortly after ran into a river, where it was buried until 1870, when the superintendent of the road had it dug out and put in service again. Although largely out of date and at least a full generation behind the times it was kept in use on a small branch road down in Mississippi up

EARLY LOCOMOTIVE.

to three years ago. This engine is a curious looking machine and is an interesting attraction. When first put in service it ran on strips of iron bolted to wooden rails laid lengthwise. A section of the old track thirty feet long is also shown. There are fifty odd locomotives in the Transportation building and two outside. The two outside are wonders. The Brooks engine, which is on the north side, weighs ninety tons and is designed for freight. It has twelve wheels, each 52 inches in diameter, with all the latest improvements. The pedestal on which it stands is four feet high. At the south end of the building is a Baldwin engine. This engine weighs 100 tons and is the largest ever turned out by any works. It is a twelve-wheel, compound engine of the Van Clain type, with a 20 by 6-inch cylinder. The wheels are 52 inches in diameter and the boiler 72 inches in diameter. This engine was built for the Central railroad of New Jersey and will run on that road after the Exposition. Among these fifty odd locomotives in the building three are from England, four from France and three from Germany, and in addition Rogers, Pittsburg, Richmond, Porter and Schenectady works are represented. The largest exhibitors are the Baldwin people, who send fifteen engines. This company represent all of their machines in action. Each is jacked upon bases to allow the wheels to turn clear of the rail about an inch and a half, and the wheels are turned by compressed air. The company also have an engine for which a speed of ninety-five miles an hour is claimed.

PARLOR CAR OF TODAY.

JAMES WATT ON TRANSPORTATION BUILDING.

It is of the compound type, with seven-foot drive-wheels. Certain improvements have been made on this engine over one of its type which stood a test of ninety-two miles an hour, the fastest mile being 39¼ seconds. The costliest and most magnificent train throughout is the new mahogany train built for exhibition by the Canadian Pacific railway. At the request of Chief Willard A. Smith, the company undertook to furnish a train to stand side by side with the one sent by the London and Northwestern. The two together—one vestibuled and the other on the continental coach pattern—make a most interesting comparison of the two methods. The train was built at the Montreal shops, is 400 feet long, 10 feet 3½ inches wide and 14 feet 8 inches high. It consists of a locomotive, baggage car, second and first-class coaches, dining car and sleeper, all vestibuled, steam heated and electric lighted and equipped with automatic brakes, couplers and signal devices. American railroad men are apt to gasp when they read the figures accompanying the exhibit's entry. The engine and tender weigh 213,000 pounds—106½ tons loaded—are of the ten-wheel passenger type, with drivers 5 feet 9 inches in diameter; the locomotive and tender, coupled, measure 59 feet 8 inches in length. It is claimed the monster locomotive is capable of hauling ten coaches sixty miles an hour for its fuel and water distance. The baggage car is of standard type and weighs thirty tons; second-class car, upholstered in leather and used for a sleeper at night, weighs thirty-two tons, capacity sixty-four passengers; first-class car, same weight, capacity fifty-six passengers, interior decoration in early Italian renaissance style, upholstered in plush, woodwork in main room white mahogany, smoking room in old oak, upholstered with olive corduroy. The dining car and sleeping car are decorated and finished in a fashion to make plain citizens afraid to enter. The dining car is in Italian renaissance, carpet of old India rug pattern.

JOSEPH MICHEL MONTGOLFIER ON TRANSPORTATION BUILDING.

GEORGE STEPHENSON ON TRANSPORTATION BUILDING.

old bronze metal, leather of yellow-brown. Its weight is 85,000 pounds, length 70 feet 10 inches, on six wheeled trucks. The general collection embraces many precious railroad relics of Europe and America, and as a whole it is a remarkable combination of original drawings, old-time autographic letters, daguerreotypes, and implements. There are the spade and pick used by Charles Carroll of Carollton, the last surviving signer of the Declaration of Independence, in turning over the first shovelful of earth in the construction of the Baltimore & Ohio Railroad at Baltimore, July 4, 1828—the first event in the railroad history of the American Continent, and the first railroad, in the true sense of the term, in the world. All rail lines in England at this time were tramways, built solely for the carrying of coal. There is also the trowel used by Charles Carroll in laying the cornerstone of the Baltimore and Ohio station on the date mentioned, this same trowel being also used subsequently to lay the cornerstone of the Washington Monument at the national capital. There is likewise the special badge worn by Charles Carroll at the laying of the cornerstone, another badge worn at the same time by the Grand Master of Masons, and a third, of different design from either of the others, worn by Shipley Lester, Chairman of the Citizen's Committee. In the collection of relics is the Masonic apron worn by the Grand Secretary; the first certificate of stock of the Baltimore and Ohio Railroad Company; way bills, which in the early days of the Baltimore and Ohio were made out for each car, with every passenger's name and destination entered thereon; large pasteboard passenger tickets of different colors for each day in the week; the original letter of Ross Winans, then an Assistant Master of Machinery, and afterwards the great railroad contractor in Russia, and many-times millionaire, stating to the President of the Baltimore and Ohio that he found it impossible to support his family on $75 a month. Old-time pay rolls

THE PILOT ON TRANSPORTATION BUILDING.

DENNIS PAPIN ON TRANSPORTATION BUILDING.

showing the small beginnings in the way of salary received by many of the subsequently best-known railroad managers in the country are exhibited. John King, President of the Erie; James Clark, President of the Illinois Central and various other roads; Albert Fink, Trunk Line Commissioner; W. T. Blanchard, Trunk Line Commissioner, and numerous other distinguished men in railroad circles, all commenced in a very small way on the Baltimore and Ohio, which has been the greatest railway school in America. The collection of old historical drawings is notable. There are fourteen of George Stephenson's earliest efforts, numbering among them the "Twin Sisters," the "Patentee," the first locomotive with steam brakes; the "Belted Will," "Lancashire Witch," "Northumbrian," the engine that opened the Liverpool and Manchester, the first railway in England; the "Rocket," the "Planet," and other famous historical locomotives. One of the interesting foreign exhibits is a parlor car such as German railroads use, built by Van Der Zypen & Charlier of Cologne. The body of the car is thirty feet long, ten feet wide, and is built mostly of steel. The lower half of each side is a solid sheet of steel thirty feet long, three feet broad, and one-eighth of an inch thick. On the side-plates rest the window frames of wood, covered with sheet iron. The cross-bars of the running gear are made of pressed steel. The interior of the car is finished in solid brass of fanciful design, buff silk, and blue velvet. The top, made of sheet steel, is oval in shape and tastefully decorated. The platform at either end is surrounded by beautifully wrought railings of iron. The interior is similar to that of the day coaches found on American railroads. The seats are arranged along either side, with an aisle in the center. Alpha and Omega in railroading, represented by the De Witt Clinton and the empire state express trains, stand on the parallel and contiguous tracks. The New York Central also has another exhibit in a

ROBERT FULTON ON TRANSPORTATION BUILDING.

building near by. The Pennsylvania Railroad also has a separate exhibit located between the Hygeia Building and Cold Storage.

The space assigned the Pennsylvania company is 400x150 feet, and the exhibit is partly outdoors and partly housed in the main hall, 100x40 feet in size, built of staff and of classical and beautiful architecture. The exhibits relate only to the transportation lines comprising the Pennsylvania railroad system, and its design is not only to perpetuate the early history of the lines merged into or associated in interest with the Pennsylvania company, but also to place permanently on record the results that have attended the efforts of the management's advanced methods.

One of the outdoor exhibits is a section of a four-track standard railroad, 100 feet in length, laid with standard 100-pound rails, or 3,333 pounds to the rail, with frogs, switches, stone ballasts, ditches, signals, and overhead foot bridge. The rails are 100 feet in length. The track is ballasted with crushed stone and drained on each side by drains made of concrete. The signal tower is equipped with a special Westinghouse electro-pneumatic machine; which controls the two switches and six signals governing the track. Nothing like this in the way of a railroad track has ever been seen before in the West.

On this splendid track and in strange contrast with it, is exhibited the original locomotive "John Bull," with pilot and tender complete, which was first put in service on the Camden and Amboy railroad Nov 12, 1831, and which is the oldest complete locomotive in America. It was still able to haul to the Exposition the two Camden and Amboy passenger coaches of the style of 1831, leaving New York April 17 and arriving in Chicago April 22. On the track are exhibited also the two special gun cars on which the two huge Krupp guns of ten inches and sixteen and one-half inches bore were brought here. The guns weighed 140,000 and 285,000 pounds respectively and the gun cars 113,300 and 175,000 pounds, making totals of 253,300 and 460,000 pounds. Reproductions of the guns are mounted on the gun cars.

Still more interesting, if possible, is a collection of old railroad material sent in a special car from the Smithsonian Institution in charge of J. Eifreth Watkins. It consists of a number of specimens of articles in use as far back as 1830 or 1831. Old signals, wooden engine and car wheels, strap rails, and primitive switches and crossings are exhibited, but the most interesting article is a section of track laid in 1831 on the Camden and Amboy railroad. The rails are about the size of those used in mines for small hand cars. The ties are blocks of granite about two feet wide, laid three to each rail. The stone sleepers are provided each with two holes, or, when they come at the joint of two rails, with four holes. In these holes were driven locust wood plugs and the rails were fastened down by spikes driven into the locust plugs. When they fastened a rail in that way in 1831 it was expected to stay. The rails themselves were held together by single fish-plates at each joint, to which they were riveted with hot rivets. This was to make the track very rigid, the possibility of rails wearing out never occurring to railroad men in 1831, since at that time none had ever given out.

The first attempts at navigation are well illustrated by canoes and rafts which bear many strange names and which have been gathered from the islands of the

sea, the heart of the Dark Continent, the rivers and lakes of America, and the frozen regions of the far north.

Innumerable models, accurate in every particular, illustrate the oddities of the marine construction of China, India, Ceylon, and the Malay Peninsula. The use of the various forms appears in pictures from original photographs made by the Exposition's representative in various lands. A superb Turkish caique is one of many similar objects of interest. The growth and present perfection and variety of the merchant marine and the navies of the nations of to-day appear graphically in the shape of hundreds of models of the finest workmanship. The big shipbuilders of the world, and especially of that country which has so long ruled the sea, have vied with each other in showing the miniatures of their triumphs. The great steamship lines of the world vary this by diagrams and other devices for illustrating life at sea. At one point in the building there arises before the visitor the side of a great transatlantic liner, or at least a section of it sixty feet in length. Entering on the lower deck, one may pass through the various rooms and ascend staircase after staircase for five stories, the rooms, their fittings and furnishings, being identical with those of the real steamers. And then there are superb collections of sail and row boats, yachts and launches, of such graceful lines and such elegant finish that one lingers longingly over them and wishes that his purse was something fatter. The North German Lloyd Steamship company have a novel exhibit—a large map of the world on which is noted the daily positions of all the steamships of the North German Lloyd company. These positions are indicated on the various ocean lines of the company by means of miniature steamers that are moved from day to day to correspond with the movements of the company's vessels. Around this map are placed the models of the six newest steamships of the company and on the walls of the pavilion are descriptions showing the tonnage and ocean passenger traffic of the world. The exhibit is in charge of one of the officers of the company detailed for that purpose. Thomas Cook & Son make a fine exhibit—and who has not traveled in some part of Europe, or Asia, or Africa—whc has traveled much—who has not been at some time or another a "Cookie."

LOCOMOTIVE STATUARY ON TRANSPORTATION BUILDING.

LORD OF THE ISLES.

Rising aspiringly in the southern central court is a huge steam hammer—the fac simile of that of 125 tons, the largest in the world. It calls attention to the fact that not only the "fruits of peace" but the "peacemakers" have here a place. Because naval vessels group properly with merchant marine and pleasure craft they keep them company and they bring them naval armament and equipment. Recent improvements in armor plate and naval ordnance are fully shown and will bear careful scientific study. An important and fascinating portion of the marine exhibit is in the gallery floor, which is reached by free elevators at frequent intervals. These elevators are themselves exhibits of vertical transportation.

Much has already been said about the luxurious and useful modern carriages and other wheeled vehicles which celebrated makers in the world are displaying. Here and there is an "old-timer" like the deacon's "one-horse-shay." There are some which belonged to celebrated men of an elder day. A Lord Mayor's state coach stands out in startling contrast contrast with a rude carreta made without metal by the untutored hands of the Pueblo Indians. There is a startling outfit of cart and harness from Palermo, land sledges from Punchal, a caléche from Quebec, and a Cuban volante. The horse, the ox, and the ass appear in various burden-bearing capacities, and the harness and saddlery abound in most useful and economical forms, as well as in the elegant and even fantastic.

Almost side by side in the Carriage Department of the Transportation Building stand types of the English and American styles in carriages. The former is a heavily built court coach, the coachman's seat draped with a heavy hammer-cloth, with a rumble behind and footboard for the footman. This, of course, is not intended for everyday use, but in its solid build and heavy wheels and tires, expresses the English idea that strength can only come from massiveness. The American ideal, on the other hand, is a light top wagon whose wheels look like spider-webs by the side of those of the massive English vehicle, yet of the two over the average roads of this country the latter would undoubtedly stand the strain much longer than the English production, as well as being far easier on the horses drawing it.

The human pack animal is not forgotten. The cargadores of South America and street carrier of the Orient form picturesque groups. Palanquins, traveling hammocks, and sedans from remote corners of the globe, and some from remote times, illustrate how one class of mankind drudges that another may ride in luxury.

Oddly contiguous to these boxes and bags on poles rise many beautiful pavilions, which shelter the pets of the "wheelmen." The bicycle exhibit to be found in the beautifully lighted and readily accessible entresol. Several nations have contributed, but the American makers, both for the number and the beauty of their displays, are entitled to unstinted praise. There are also choice and rare marine exhibits on this gallery floor, some beautiful dioramas, and many exceedingly important engineering models, drawings, and maps. The associated engineering societies of Germany occupy the southern gallery with an exhibit which has cost a large amount of work and money—a very large amount when it is considered that the commercial inducement plays only a slight part in it and that

it is intended almost solely as a contribution to the engineering advancement of the world.

Models or relief maps of the Erie Canal system, the Nicaragua Canal, and the Hudson river are of great interest. There are five very elaborate models of Hell Gate as it looked before and after the dangerous flood: Rock blown up in 1885. The first shows the gate prior to 1809 on a scale of an inch to the mile. Ward's island, Hallett's Point, Flood Rock, the Hen and Chickens, Gridiron, and the Negroheads are plainly recognized in the miniature model. The second exhibit is a model of Hallett's point, one of the rocks blown up by Gen. Newton in 1876. By turning a crank the surface is made to rise, showing the galleries, shaft heading, and coffer dams as they were just before the rock was torn asunder by dynamite. There are also models of Way's reef, Flood reef, and of the drill scow used in making the borings at Hell Gate.

A very interesting and educating place is the Transportation Building, and no mistake. It overlooks the wooded island, forming one of the group of edifices composing the northern architectural courts of the Exposition. It is refined and simple in architectural treatment. The main entrance consists of an immense single arch, enriched to an extraordinary degree with carvings, bas-relief, and mural paintings, the entire feature forming a rich and beautiful yet quiet color climax, for it is treated in leaf and is called the golden door. The interior of the building is treated much after the manner of a Roman basilica, with broad nave and aisles. The roof is in three divisions; the middle one rises much higher than the others and its walls are pierced to form a beautiful arcaded clear story. The cupola, placed artistically in the center of the building and rising 165 feet above the ground, is reached by eight elevators. The main building of the transportation exhibit measures 960 feet front by 250 feet deep. From this extends westward to Stony Island avenue an enormous annex, covering about nine acres. This is only one story in height. In it may be seen the more bulky exhibits. Along the central avenue or nave, facing each other, are scores of locomotive engines, highly polished. The Transportation Building cost $488,183.

Those who were loudest in their condemnation of the bright colors used in painting the Transportation Building are now the sorriest that they did not count ten or delay in some other way before they spoke. As the color scheme developed the carpers grew fewer and the advocates of the plain grew more aggressive. One is at a loss to explain a sky-blue statue of Stevenson, an emerald green Watt or a terra cotta Edison, but each merges its glaring colors into a congruous whole. Artist and layman acknowledge that the boldness of coloring does more than anything else to bring out the dazzling brightness of the white city.

Except for the doorway of retreating arches, the architectural gem of the whole exposition, no particular attempt at adornment has been made on the Transportation Building. Every nook, nave, corridor and grand gallery is built for a purpose. It was planned and built, more than any building in Jackson Park, for its use in properly displaying ancient and modern methods of transportation. Being in this highest sense useful it is, according to Socrates, in the highest sense beautiful.

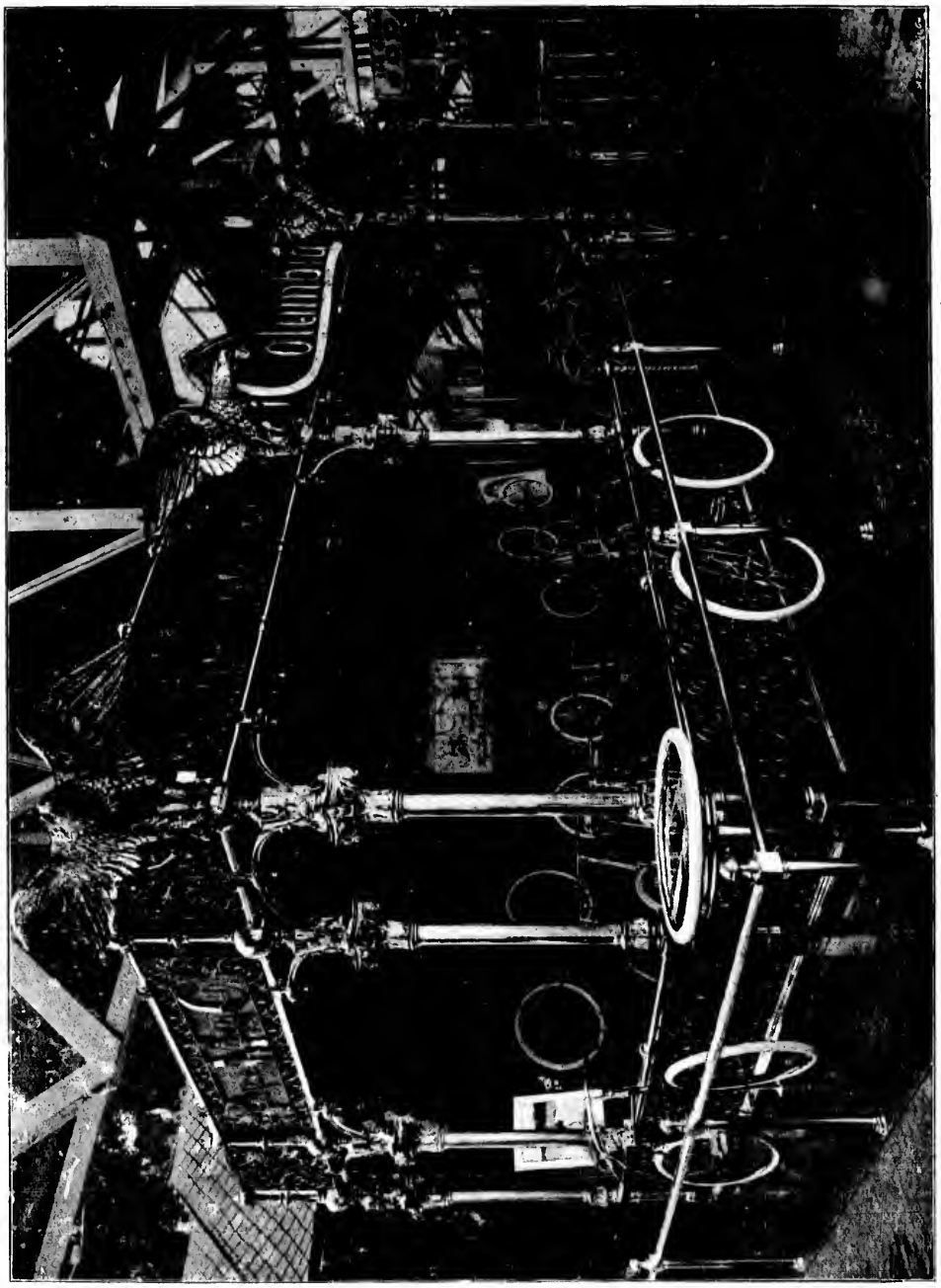


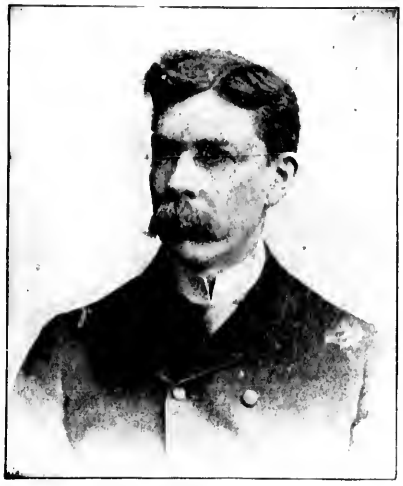
EXHIBIT OF POPE MANUFACTURING COMPANY IN TRANSPORTATION BUILDING.

It should be classed as a cardinal sin for any sightseer to merely walk through the Transportation Building, glancing at the exhibit with indifferent eye. Better not enter the portals of the building. It is a place for the student and not for the dilettante. The one sees the apotheosis of evolution in transportation. The other sees wheels going round or methods for making them do so. You may travel over the world seeking old and new methods with a fadist's zeal and a lifetime of search will not bring you to as many methods of progression as you will find in the Transportation Building. The experts in transportation methods are the ones who are the most astonished. It convinces them more than any one else of the littleness of human knowledge. In their own field, where they have been accustomed to wear as a right the crown of the chieftain, they meet strangers with methods superior to their own in every respect. After a careful inspection of the cars and locomotives the general manager of one of the best roads in the United States said: "Our complete train service in the United States is perhaps better for our uses than that of any foreign country, but there is not one of them, apparently, who has not advanced further in particular directions. American roads can learn a lesson in improved methods from every foreign exhibit in the Transportation Building. It is rather humiliating to acknowledge this, and I, for one, have just ordered a smaller sized hat, but the thing to do is to acknowledge the truth and adapt for our own use the many improvements displayed."

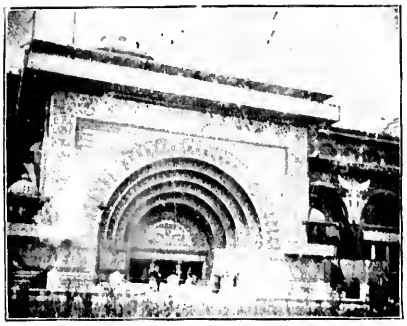
How Darwin would gloat over the transportation exhibit! Logicians tell us it is a vain thing to attempt proof by analogy. Perhaps not by a single illustration, but how is it when illustrations are heaped Ossa on Pelion? Whether or not the doctrine of evolution applies to man, there is no question that it applies to the works of man. From the lifting of weight by contracted biceps to the steam crane which lifts a hundred tons as easy as the baby lifts its rattle is a lesson in evolution. From the original "Rocket" and "Meteor" locomotives with their stove boilers and barrels of water on wheel-barrow tenders to the 130-ton locomotives capable of a speed of 100 miles an hour is an object lesson seen here in a moment, but it compasses the experiences and best work of hundreds of thousands of men during their lifetime. Forty years ago an enterprising Frenchman joined two wheels with a frame, put a saddle on the frame, and with toes just touching the ground developed a speed which astonished the universe. From this "dandy horse" to the modern pneumatic safety bycicle is a long step or rather a multitude of short steps, but each can be seen in the general scheme of evolution. One is fairly dazed at the development of man's genius, but his exaltation is shattered in a minute by the chattering of an impertinent sparrow which flits jerkily along just out of reach. How long before man will propel himself in similar wise? From the "dandy horse" to the pneumatic, from the "meteor" to the modern locomotive is but the beginning of things in comparison with the airy flight of the British interloper. Ages may come and Langleys may go before the aeroplane principle is fitted to the uses of man.

Willard Adelbert Smith is chief of the department of the transportation exhibits. He was born at Kenosha, Wis., Sept. 20, 1849. His parents came west from New Hampshire in the '30s and were among the early settlers in Wisconsin.

His early education was in the public school of the village, up to 1861, when the family removed to Rockford, Ill., where he entered and graduated from the high school. In 1865 he entered the freshman class of Shurtleff College, at Upper Alton, and graduated with class honors in 1869. The same year he entered the law school of Washington University, St. Louis, Mo., and graduated with highest honors in 1871. In 1870 he was admitted to the bar of the State of Missouri, and in 1871 admitted to practice in the United States courts. He was appointed to his present position with the exposition July 27, 1891, upon the recommendation of the railroad managers of Chicago.



CHIEF SMITH.



GOLDEN DOOR, TRANSPORTATION BUILDING.

INTERIOR OF WYOMING MINES EXHIBIT.

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Mines and Mining Building
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CHAPTER XIII.

MINES AND MINING BUILDING.

The Department of Mines Excels all Former Exhibits of its Kind—Included in This Display is Every Kind of Material from the Rough State to the Finished Product—Artistic and Instructive Grouping—Striking Exhibit from New South Wales—Michigan Makes a Fine Display of Copper in Various Shapes—Missouri Shows Zinc, Lead, Iron and Other Minerals—Canada Contributes Nickel, Silver and Gold—Montana's Pavilion a Centre of Attraction—The Silver Statue of Ada Rehan—Colorado Makes a Magnificent and Dazzling Display—California Shows Gold, Silver, Copper, Tin, Borax, Quicksilver, and Many Other Minerals—Its Marble and Onyx Exhibit Challenges General Admiration—Ponderous Mining Machinery in Operation—Miniature Mining Plants With Devices for Boring, Lighting, Hoisting and Pulverizing—Methods of Separating Ores—Old Style Rockers and Long Toms—All the New Implements—Magnificent Exhibits of Coal and Iron by Ohio and Pennsylvania—The Wonderful German Exhibit—The Finest Ever Made Before in Any Country—Sketch of Chief Skiff.

SUCH an aggregation of the products of the mines of the world as is now represented in the Mines and Mining building has never been seen before. All the states and territories of the Union; far-off Alaska, Australia, Brazil, Mexico, and Southern Africa; Great Britain, Germany, Canada and Greece—all are represented. Of the foreign countries Germany and [illegible] lead; while the friendly but vigorous rivalry [illegible] great metal-producing states and the territories [illegible] has been productive of wonderful results. The German exhibit includes a display of iron and steel girders in pyramids arranged in either an artistic or grotesque form, and a tree made up of wire and iron pipe of all manufactured sizes. This display, which cost $50,000, is the finest iron and steel exhibit ever made at the world's exposition. Native workmen labored on this exhibit for four months.

The exhibit of New South Wales attracts much attention, not only from the character, but the size as well, of the display. The entrance to the New South Wales Pavilion is marked by columns of metal ingots, each containing six tons of copper, tin, antimony and silver ore. There are also pillars of bituminous coal twelve feet high, the blocks being four feet square, representing the average thickness of the vein from which they were taken. A column of canal coal is also shown. This coal, which is locally known as "petroleum shale," yields 150 gallons of crude petroleum to the ton. On raised platforms are shown specimens of reef and placer gold, while samples of iron, copper, manganese, antimony and other metals are ad

vantageously displayed. The coal columns are spanned by a triple arch, sprinkled with coal dust, on which are shown in silver letters the yearly output of coal and minerals.

California, Colorado, Montana, Idaho, Arizona, New Mexico, Missouri, and Wisconsin astonish the beholder even if he be familiar with the mineral resources of these states.

Among the state exhibits Wisconsin stands in the very front rank and attracts admiration. Many of its most valuable specimens enter into the construction of a magnificent pagoda twenty-five feet high and occupying a floor space on one of the best blocks in the building, forty-nine feet long by forty-five feet wide. This pagoda consists of four monoliths resting on elaborately carved bases furnished by the Prentice Brown Stone company. There are two entrance of terra-cotta surmounted by the coat of arms of the state. The railing extending around the four sides is made of green jasper and fancy granites with wrought brass panels of clever design. The plans show that the pavilion in the center rests on four blocks of different colored granite, and the capitals of the columns which hold them are liberally stu 'ied with amethysts and other brilliant stones. The fountains in the center of the pagoda are also of amethyst, the whole forming one of the most attractive features in Chief Skiff's department of the great show. The entire display represents an outlay of $20,000. The pagoda is filled with handsome show-cases containing the best specimens of ores and mineral of all kinds that Wisconsin can produce. For instance, there is one case holding $250,000 worth of pearls. It was designed by the Beatty Manufacturing company. This display rests on a platform made of white and black marble tiling, the whole being surmounted by a beautifully-gilded dome, richly ornamented, thus giving the display a showy effect both from the galleries and distant sections of the building.

Kentucky's mineral exhibit is one of the chief points of interest to all classes of visitors in the Mines and Mining building. In addition to the display of mineral products, tastefully arranged in a gallery nearly 150 feet long, under the building, is reproduced a section of the famous Mammoth Cave. The wonders of the cave are displayed by means of paper and plaster work, stalactites being reproduced in staff, and a collection of blind fish and other animal life peculiar to the big Kentucky hole are exhibited. The entrance to the Kentucky pavilion, which stands near the north end of the Mining building, is a mammoth arch of polished cannel coal. This arch is thirty feet high, twenty-three wide, and over the entrance in letters of gold the word "Kentucky" is emblazoned. Just inside the entrance is a relief map of the state, 5x10 feet, constructed on a scale of four inches to the mile, and showing every river, town, village, city, mountain range, and other geological features. The display of iron ore from various sections of the state makes a splendid showing, while the specimens of coal, building stone, and tile clay are artistically arranged in groups representing the east and west sections of the state. Kentucky produces the finest tile clay known in the United States, and some splendid specimens of the burnt tile are shown at the main entrance and on the tiers of steps on each side of the pavilion.

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"STATUE OF JUSTICE" IN MONTANA EXHIBIT OF MINES BUILDING.

The various industries are shown by means of photographs, and maps serve to illustrate the geographical distribution of the mineral products. Of the $100,000 appropriated by Kentucky for World's Fair purposes, $10,000 was set apart for the mineral exhibit. But so effectively has M. H. Crump, the director of the exhibit, managed his resources that the exhibit only represents a total outlay of $25,000. Private contributors to the exhibit have furnished splendid displays at their own cost, Kentucky paying the freight bills only.

Michigan makes a generous display of copper and iron ores and refined copper, and exhibit of the machinery and methods of working the mines. The copper mining industry of the northern penisula has reached a great height, and thus far the output more than equals the demand.

One of the most interesting of all the exhibits is that of the Cape Colony diamond plant, and the daily operations of the Zulus attract great crowds. The rough work of the washing is done by these natives, four of whom are fine, stalwart fellows, one being 6 feet 7½ inches in height. The Zulus attract nearly as much attention as the diamonds, and when one of them discovered that he was being sketched he raised a row that nearly wrecked the mining building. Tiffany & Co. have an experienced corps of cutters and polishers at work in connection with this plant. The Cape Colony people have 150 tons of pay dirt—"blue" it is called—on the grounds and run the big washing machine two hours daily. It is a remarkable fact that the Zulus, who are largely employed in the Cape Town mines, and who are naturally thievish, have learned to be scrupulously honest as far as diamonds are concerned. In their traditions there is record of a case where a Zulu swallowed a handful of rough gems and was cut into slices by the mine owners in their determination to recover the missing stones. That particular Zulu never stole any more diamondiferous dirt.

The Pennsylvania pavilion is just in front of the north entrance east of the main aisle. Stepping into the pavilion the visitor passes between neatly finished glass cases containing 300 bottles filled with petroleum products. The bottles are twelve inches high, four inches wide, and one inch thick, and bear the State coat of arms. In front of these cases stands a huge relief map of the State 7x14 feet, showing the location of all coal and iron mines, oil and glass fields, blast furnaces, pipe lines, and railroads. The most attractive feature in the exhibit is a complete working model of a coal mine and breaker. The model occupies a space 24x8 feet. Nine engines are shown and the work they do from the time the coal is hauled up the inclines, dumped into screens, where it is assorted into sizes and loaded into railroad cars, while the mine cars return by gravity for fresh loads. Beside the model stands a little pavilion constructed to show the possibilities of slate. Every use to which slate can be put—for pillars, roofing, school slates, and so on—is shown. At the west side stand sixteen trumcated pyramids, disposed in rectangular form, showing all the varieties of anthracite found in the anthracite region and also all the commercial sizes. Analyses of the different varieties are exhibited. At the corners of the rectangle are glass cases two feet square and eight feet high displaying the varieties of bituminous coal. A colored drawing is shown

illustrating the manufacture of zinc oxide and spiegelite, which is used for recarbonizing iron from the manufacture of steel. Another case contains samples of the thirty varieties of fire clay found in the State, crude and burnt, and the bricks made from it. Next to it are cases showing the varieties of tile clays, crude, floated, ground, unburnt, burnt, glazed, and unglazed. There are also samples of the seventy-eight varieties of building stone in the State, finished and unfinished, shown at the north end of the pavilion. Then there are samples of the glass sands of the State, the different mixtures used for the various kinds of glass, and specimens of the finished product. Soapstone, nickel, manganese, iron ore, and the various stages in the manufacture of iron with charcoal, anthracite, and bituminous coal are to be seen. Near the model of the mine and breaker stands a primitive furnace, such as was used in the beginning of the iron industry. Grouped about it are the various tools used in mining. Upon the south and east walls are photographs, charts, and maps of geological and mineralogical surveys, relief maps, and the like. In the center of the Mining building stands what the Pennsylvanians call an anthracite "needle." It is a shaft of anthracite showing a vertical section through a fifty-four-foot vein in Schuylkill County, with the coal-slate seams, etc., in their proper place. Creede's mineral display is one of the best from Colorado. It comprises a collection of twenty-four samples of ore taken from seventeen mines, showing silver, gold, zinc, and lead. The silver assays show from seventeen to 2,100 ounces to the ton, the gold 1-10 to 4.35 ounces, lead from 9½ to 70 per cent, and zinc 30 per cent. The mineral-bearing matter includes quartz, amethyst, rose, jasper and tellurium, spar and talc. Many of the specimens are said to show large flasks of fine silver and gold.

THE MINER.

California's exhibit is worthy of that great state, costing about $10,000. It is in the form of a Grecian temple, with three main entrances flanked on the sides by smaller loggias. The central portion of the facade is 20x37 feet in dimensions and the loggias are 12 feet high. This structure is composite in construction, the materials coming from all parts of the state, including yellow and mottled marble from San Bernardino county, grayish green sandstone from Alameda county, Rock-

land white granite from Placer county, Raymond granite from Fresno county, yellow sandstone from Santa Clara county, veined marble from Amador county, onyx from San Luis Obispo county, red sandstone from Flagstaff county, marble, Sespe brown sandstone, and soapstone from the Catalina islands off Los Angeles, and other materials from other parts of the state. The capitals of the four columns at the entrance are of virgin gold and silver, while the bases are of composition and copper finished. The pavilion is roomy and sub-divided to show to advantage the extensive mineral display that was sent by the state.

Ohio makes a fine display of its stone, coal, and iron. Montana makes one of the best, its most attractive party being the solid silver statue of Ada Rehan representing justice. Canada also makes a rich display.

Viewed from the galleries or the floor the Mining building carries out to the letter its chief's account. Not only are its exhibits massive, natural productions, but they are massed together in a manner which suggests their nature and purpose. There are great obelisks of metal, solid piles of ore, substantial facades of stone and cement, and small mountains of coal. One country shines with a pillar of silver surmounted by Atlas bearing a silver globe, and another shows a [illegible] of metal that looks as if it had been hewn out of a solid block, and the observer may see mining machinery in operation, methods of separating ores, and devices for boring, lighting, hoisting, and pulverizing.

The Mining building is situated amidst the most beautiful of natural and architectural surroundings. It faces at the north the western and middle inland lakes and the flowers and lawns of the Wooded Island. It reflects on the west the gilded light of the Golden Door and the singularly handsome and unique high-color finish of the Moorish Palace for the transportation exhibits. It is flanked on the east by the turreted pavilions of electricity. At the south looms the lofty and graceful dome of Administration. The architect has seized the inspiration of the theme, the occasion and a favored environment. Upon a great floor 700 feet long by 350 feet wide and covering over five and a half acres, he has constructed a massive and solid structure, relieved and embellished with all the symmetrical and classic forms and rich ornamentations known to his profession. An arcade consisting of a loggia on the main floor and a deeply recessed promenade on the gallery floor occupy the main fronts of the building. It is intersected at the center by an enormous arched entrance 56 feet high and 25 feet broad and at the corners ends in square pavilions surmounted by low domes. The loggia ceilings are heavily coffered and emblematical decorations are massed at the prominent points of the furnace. Its architecture, of early Italian renaissance, with a slight touch of French spirit, together with the enormous and floating banners, invests the building with the animation that should characterize a great general Exposition. The interior design is of no less interest than the exterior. The roof rests upon ten great cantilever trusses so that the floor is practically unencumbered, there being only two rows of iron columns on either side. This is the first instance of the application of the cantilever system to building and the result is a structure signally adapted to exhibition purposes, the gain in space being quite large. The gallery 60 feet wide

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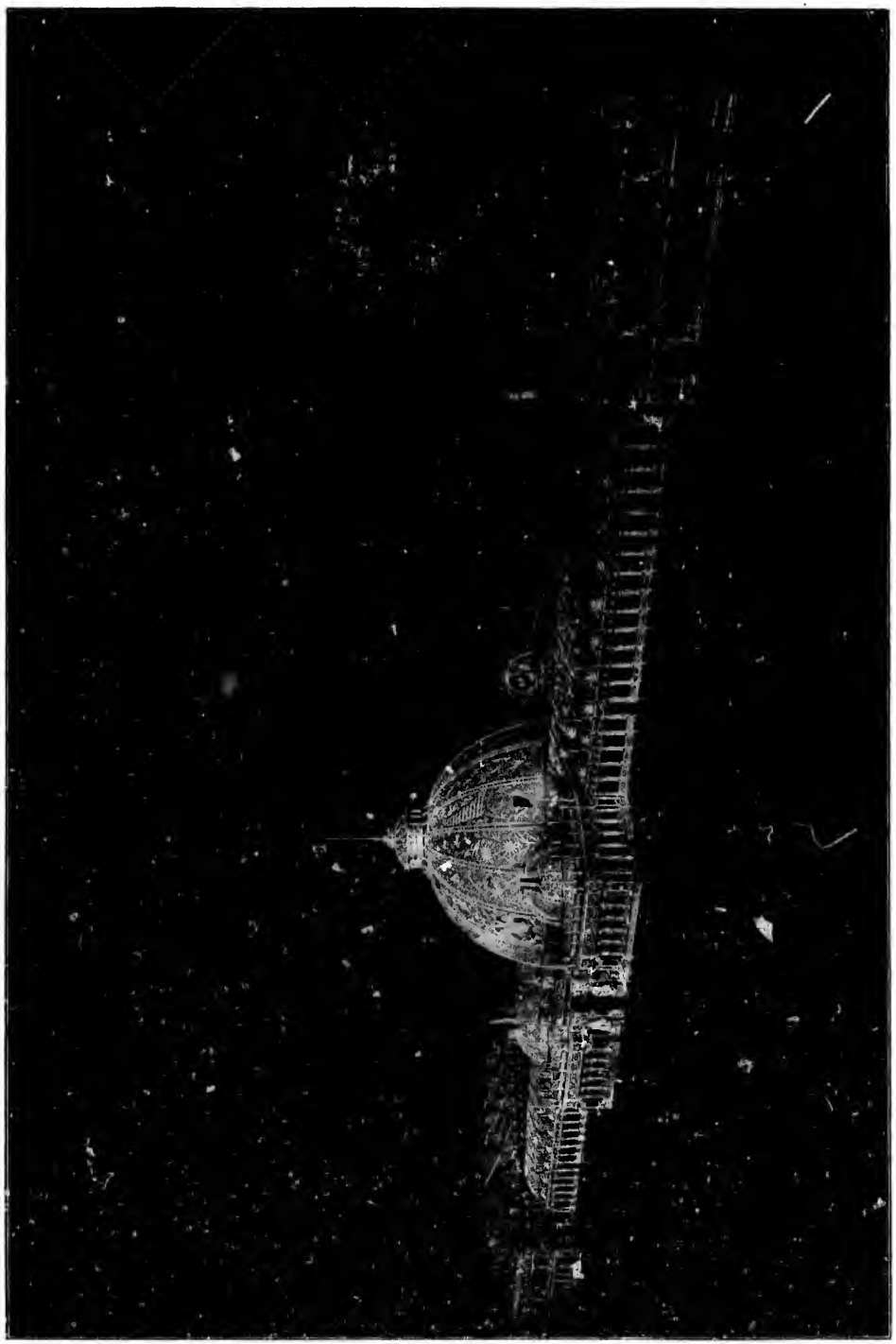

MODEL OF THE HORTICULTURAL BUILDING IN SILVER, MINES AND MINING BUILDING.

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and 25 feet above the main floor extends entirely around the building and is well lighted by clear-story windows above. The repeated series of large arched windows along the walls and the extensive glass roof covering furnish abundance of light, The cost of the building was $250,000. It was commenced in July, 1891, and was the first building to be finished.

Missouri's pavilion, which is filled whith splendid specimens, is worthy that great state. The location is central, and the structural materials were contributed by enterprising local producers. The base of the superstructure is of granite and the screen wall rising above is composed of yellow Roman brick. The coping, pilasters, and frieze at the main entrance are of terra cotta, and the panels used in decorating the entrance are onyx. Wrought out in conspicuous designs are the Missouri coat of arms, with two life-size Cupids surmounting the main entrance and festoons caught up at the top in the beak of an eagle. The general effect is very striking. Among the specimens in the pavilion are a typical specimen of disseminated lead ore weighing 4,500 pounds, a chunk of pure galena ore weighing 6,500 pounds, and still another exhibit weighing 1,650 pounds, said to be the largest jack ever taken out of a mine. The iron and zinc ores are also well represented, while coal, kaolin, or china clay, brick clay, granite, limestone, sandstone, marble, in the rough and prepared states, form an interesting portion of the exhibit.

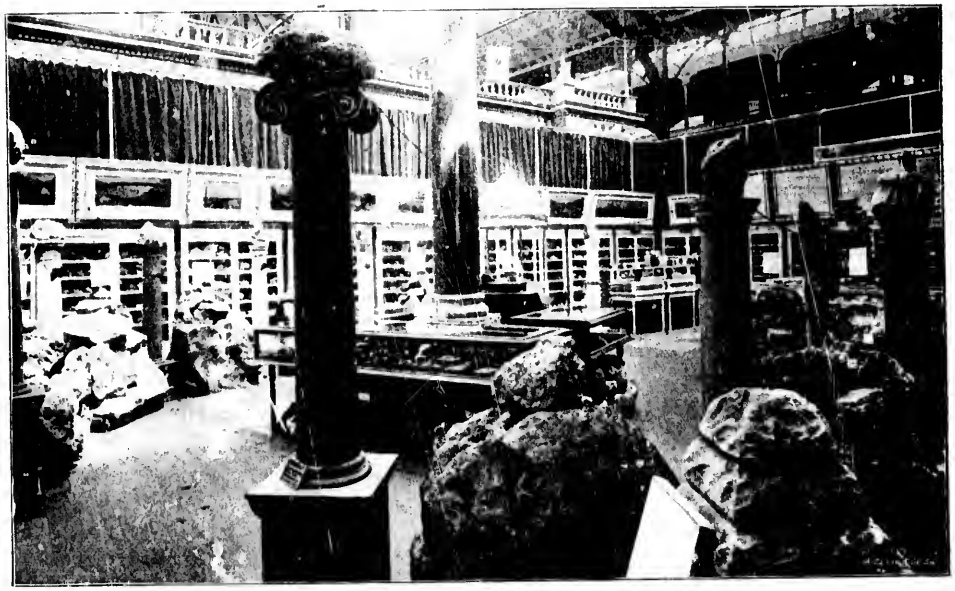
One of the most interesting exhibits in the Mining building is the collection of safety appliances commonly used by miners in their daily toil. Aside from the danger incident to all excavations—that of caving in from crumbling roofs or poorly constructed tunnels—the most prolific source of injury to miners is from fire damp, causing explosions, or noxious gases which cause death from inhalation. The exhibit of apparatus used in ventilating mines, preventing explosions, and in detecting poisonous gases is very complete. Among these contrivances the most interesting, as well as the best known, is the safety lamp. The display is historical and progressive, offering an opportunity for the study of the evolution of the safety lamp from the simple gauze lantern of Davy to the many compartmented benzoline and electric lamps of today, which combine the double purpose of safe illumination and the detection of gas in however small quantities. Of the scores of varieties which have at different times sprung into favor, had their day, and dropped into oblivion to make room for improved appliances, six of each kind are shown. These are arranged in the order of their discovery and are in charge of an expert, who explains all points as to principles of construction and relative merits. The lamps are sectioned to show compartments, method of operation, direction of draughts, etc. The most primitive lamps shown are Davy's. He was the inventor of the first lamp, a flame isolated from the dangerous fire damp. His lamp had a fine gauze around and above the flame, which, under ordinary circumstances, prevented the flame coming in contact with the exterior air. The clanny lamp followed, the inventor adding a glass tube, in which the flame was incased. Then, in rapid succession, followed Geordie, Muessler, and Thomas with modifications of the glass and draught. It was then found that the gas given off by the burning wicks was injurious in itself, and recourse was had to various spirit lamps, one fed with air

saturated with hydrocarbon vapors, and another using benzoline from a sponge reservoir. When it was found that the gas in coal mines in which fine dust was flying became very dangerous, even when present in but small quantities, inventors hit upon the plan of attaching gas ventilators to the lamps. When it was found that the miners using safety lamps injured their eyes from straining to see by the poor light of the lamps, caused by the use of the gauze, it remained for the prominent electricians, such as Edison, Pollack, Breguet, and Stella, to come forward with a safety light. Portable electric lamps were made, dispensing with the fumes of the old-style lamps, and answering all the requirements of brilliant light, simplicity of mechanism, and lightness of weight. These lamps are shown with all the intermediate steps in the progress of their development.

Swedish manufacturers are especially rich in the department of iron and steel. Probably the most attractive single-piece is a mammoth polished steel shield, eight feet high, on which are displayed, around a central medallion, twenty scenes, illustrating the Frithiof's saga. It was made in Gothenberg and is valued at $1,500. Another showy product of Swedish mines and factories is a giant band saw, 220 feet long and 12 inches wide, said to be the largest ever made. It was rolled at Sandwick. Fine edge tools and specimens of Dannemora steel, the hardest in the world, make the bulk of the iron exhibit. Fine pottery, carved woods, art furniture, and safety matches, in the manufacture of which Sweden has never let the rest of the world overtake her, are also shown. The decorations of the building are largely devoted to wax groups illustrating the peasant life of the country, and the national pastimes, skating, snow shoeing, sail skating, and other wintry sports. Upon the walls are portraits of Sweden's great ones, such as Tegner, Linneaus, Oxenstiern, and Queen Christina. Frederick J. V. Skiff, chief of the mines and mining department, was born at Chicopee, Mass., Nov. 5, 1851. He came west before attaining his majority and settled in Lawrence, Kan., where he entered the newspaper business. He lived in Lawrence for eight years and owned and edited the *Evening Standard* in 1887, when he left Lawrence and went to Denver to become city editor of the *Rocky Mountain News*. He subsequently went to the Denver *Tribune*, of which paper he was general manager and part owner in 1885, when he left the newspaper field to organize a land and loan company. In 1887 Mr. Skiff was appointed superintendent of the Colorado bureau of immigration and statistics, and in that capacity made several collections of the mineral resources of the State, which were exhibited in the St. Louis and Chicago expositions, and now are on permanent exhi-

CHIEF SKIFF.

bitions in the Pueblo Mineral Palace. He was appointed a member of the National Commission for Colorado in 1890 and was chairman of the committee on mines and mining for that body. In June, 1891, Mr. Skiff was made chief of the mines and mining department o the Exposition, where he remained until the close.



COLORADO EXHIBIT.

Eternal

CHAPTER XIV.

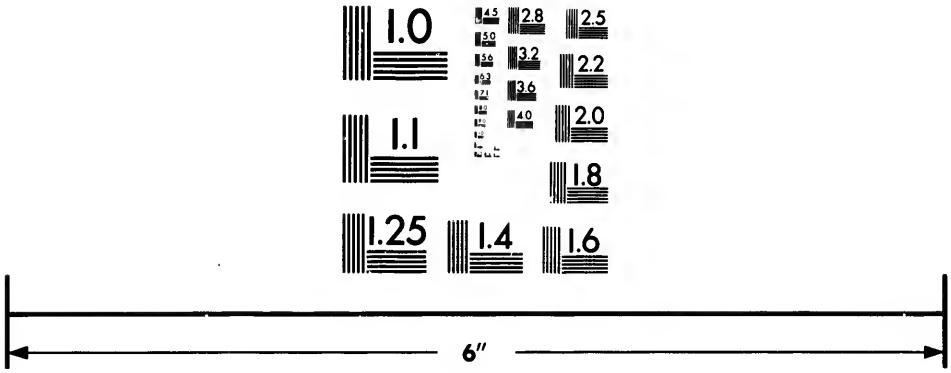
DEPARTMENT OF ELECTRICITY AND ITS BUILDING.

Wonders of Electricity—[illegible]ilding Devoted to this Science—Undreamed of [illegible]ous and Effects—Franklin and H[illegible] The Man Who First Harnessed Lightning—[illegible]of the Western Electric Compan[illegible] Grandeur and Brilliancy of the Exhibit—Tho[illegible]sands [illegible] Concealed Incandescents—Ming[illegible]bow Tones—Prismatic Colors that Awe the Spectator—An Electric Theatre—Cascad[illegible]stic Lights—Magnificent Exhibit of Thomas A. Edison, the Wizard of Menlo Park—Startl[illegible] and Beautiful Effects—Obelisks of Light and Color—Spirals of Radiance and Fountains of Incandescents—Corinthian Columns Ablaze With Imitation Sunbeams—Five Thousand Witching Lamps Glitter in Pillars of Glass—Eighteen Thousand Lights in the Edison Tower, Chief Barrett.

O single science challenges such general attention and admiration as the mysteries and wonders and the benefits and capabilities of electricity; and there is no place where the crowds go so early and so often and linger so long as at the palace devoted to the dissemination of knowledge upon this subject. Upon approaching the Electricity Building from the south the visitor beholds on a pedestal in the hemicycle the towering statue of Benjamin Franklin, the first one to attempt to harness lightning to thought. There he stands, and there is no mistaking him, in his long-tailed coat and old Knickerbocker habiliments throughout. Nor is there any mistaking of the exact moment of the philosopher's life, for the artist has so conscientiously and dramatically reproduced these that nothing is wanting in the conception. The uplifted face and eyes, the half-outstretched hands, the look of eager anticipation are all faithfully delineated. Every American school child that gazes upon it knows that it is old Ben Franklin and his kite and that he has wrested from the clouds the secret of their lightnings—that he has discovered electricity. This statue is by Carl Rohl Smith, and it has a place of honor, deservedly.

The first structure put up in the Electricity Building was for the display of the Western Electric Company. It is a rectangular Egyptian temple, with sloping sides and scalloped cornice. Without losing its thoroughly Egyptian character the temple is sufficiently conventionalized to meet the requirements of an exhibit-room. The four sides bear friezes and panels filled with the peculiar flat and angular figures of fellahin at work. The figures are exactly similar to those on obelisks and temple walls in the country of the Nile. Their occupations, however, are not plowing with a bent stick or making mud houses. They are manufacturing electrical

IMAGE EVALUATION TEST TARGET (MT-3)



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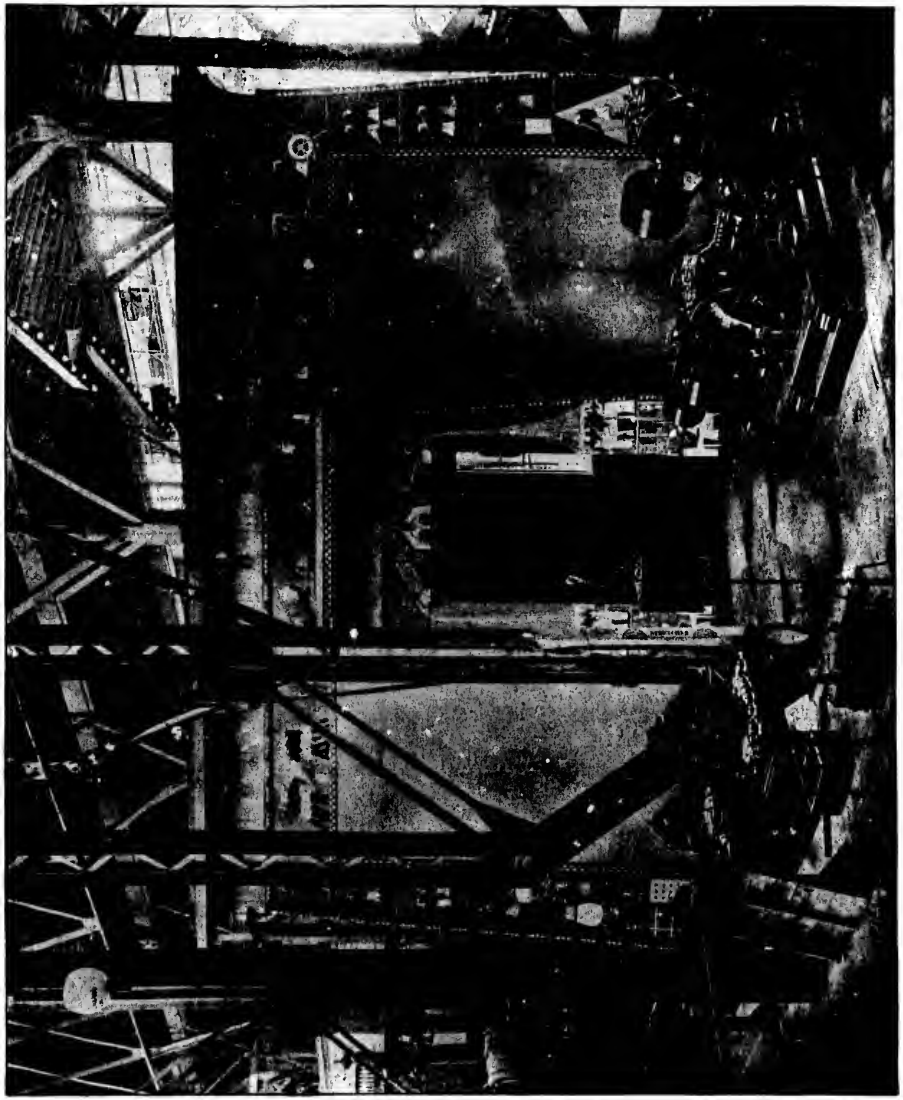


THE EGYPTIAN TEMPLE, ELECTRICITY BUILDING.

machines and appliances. The conception of the designer is a bold one and serves to contrast most strongly nineteenth century results of discovery with ancient crudity of scientific investigation—the latter, however, more by implication than portrayal. The whole is done in staff.

No pen can adequately describe the grandeur and brilliancy of this temple when flooded with light from 2,000 concealed incandescents. The main display-room is ornamented with six massive columns, composed of prismatic glass. In the center of each column is placed a revolving chandelier of electric lights. The general effect is to cause a rare vibration and mingling of rainbow tones throughout the room, which thrills the novice with a sort of indescribable awe. It is as though the surrounding air quivered with a surcharge of electrical fluid which seems to communicate its mystic motion to the spectator.

From the main room to the passage connecting with the two lesser rooms the transition is to a soothing, soft glow which drops from the ceiling. The space is roofed with ground glass and the light originates from several hundred lights between the ceiling and the floor above. In the smaller display rooms the prismatic columns are repeated.

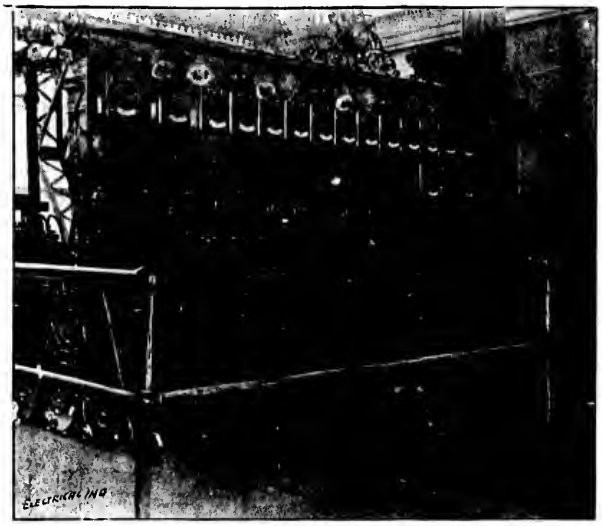
The exhibits consist of annunciators, telephone and telegraph apparatus, multiple drill presses, wire-insulating machines, cable-laying devices and every other article of electrical manufacture. Over the cases containing displays the walls are in purple and red stones, relieved by gold.

A short distance from the temple the same company have built and daily operate a theatre—not a grand, stupenduous assembly room like that of the Auditorium—just a sweet little place, modeled after the most pretentious, though, and seated and upholstered in the most approved way. Upon the stage of this theater a skilful manager presents a series of set scenes and a few puppets. It is no child's show or Punch and Judy again, though the children are greatly delighted with it. The practical purpose of this theater is to illustrate some of the things that may be done by an ingenious electrician when he is given an unlimited treasury and full control of the stage. The lighting of the theater by tiny incandescent drops is arranged so as to give the best decorative effect, but it is on the stage that the ingenuity of the electrician displays itself. There more tints and shades than the serpentine dancer has yet dreamed of, moonlight effects to please the most romantic stage lovers, lightning to which the darkest deeds and direst disasters that the melo-dramatist has yet conceived may fitly be played, and cascades of light for the most fantastic ballets.

A conspicuous attraction is Elisha Gray's "Telautogram" or long distance writing telegraph machine. This is one of the latest and most wonderful pieces of mechanism connected with electricity. Simply a San Francisco man may write to his friend in New York by telegraph and the communication is whirled over the wires instead of by the fast mail.

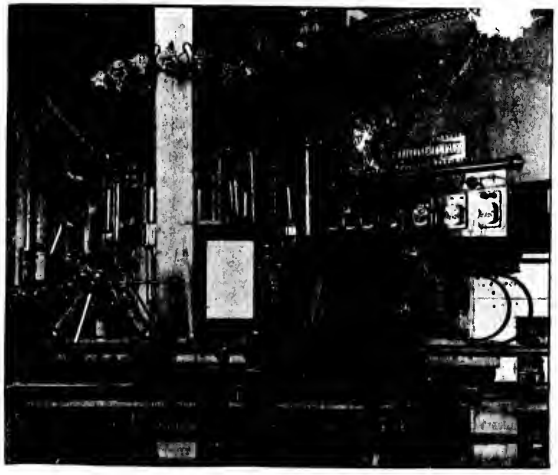
Up in the gallery and upon the main floor may be seen thousands of new devices of electrical use. There are light houses, ship and house lights, and more styles of buttons than a man could touch in a week. There are revolving, running,

THE EGYPTIAN TEMPLE, ELECTRICITY BUILDING.

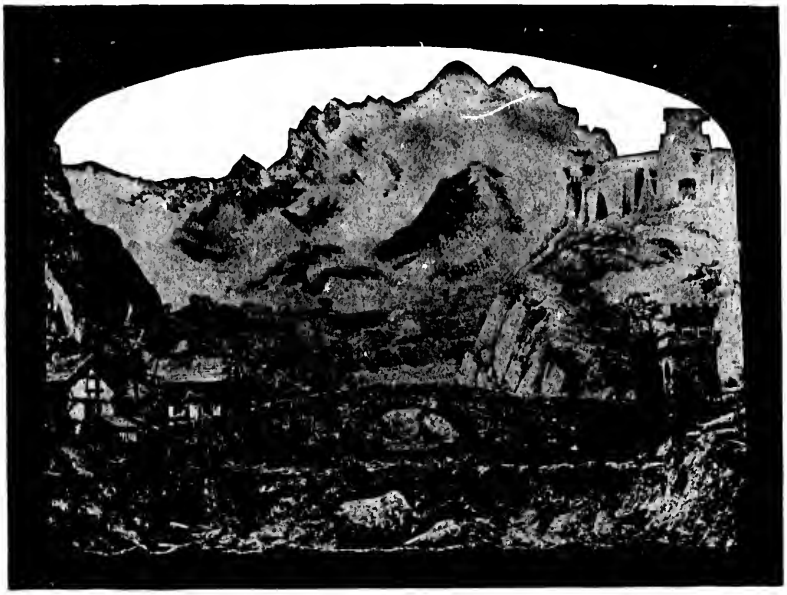


COMBINATION SWITCH BOARD.

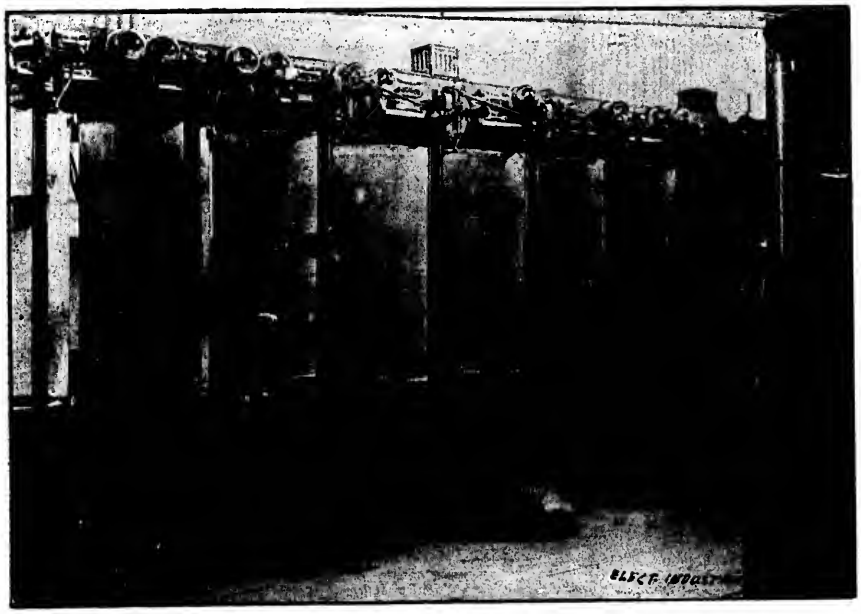
jumping, shooting and ricocheting lights and cascades of fantastic incandescents. There are Corinthian columns ablaze with imitation sunbeams, obelisks of light and color, spirals of radiance, fountains of brilliant shades, and thousands of witching lamps that glitter in pillars of crystals. There are also hundreds of phonographs that re-sing the music of the world. The formal opening of the Electricity Building did not take place until the completion and unveiling of Edison's Tower of Light. This tower is located in the center of the building and represents the achievements of the electricians who have made the incandescent lamp a life study. From the center of the building this graceful luminous shaft extends into the groined arch formed by the intersection of the nave and transept, displaying over eighty feet of solid brilliancy. The methods of construction have resulted in showing a perfect whole, as if from base to top the entire shaft was hewn from one solid mass of light. The colors are arranged by mechanical methods capable of being flashed in harmony with the strains of music. The column is crowned with a well proportioned replica of an Edison incandescent lamp formed from a multitude of pieces of prismatic crystals. Upward of 30,000 of these beautiful jewels are strung on a frame and are all lighted from the interior by a large number of incandescent lamps. The effect produced is marvelous and can be appre-



MODEL OF FARMERS RAILWAY MOTOR.



SCENIC THEATER IN ELECTRICITY BUILDING.



THE RHEOSTATS IN SCENIC THEATER, ELECTRICITY BUILDING.

ciated only when seen. The colonnade around the base is the exhibit of the Phœnix glass works of Pittsburg and the distribution of the electric conductors to attain the various effects and changes necessitates careful study, and the combination of kaleidoscopic beauties are almost infinite.

Upon the opening night alluded to the chief of the electrical department walked to the railing and gazed down the long vista of the building. On all sides, above and below, electric lamps were burning. Some with the soft glow of opals, some with the fierceness of welding heat. Whirling wheels of rainbow hues spun with ever-changing colors, and mysterious pens wrote inscriptions on the wall in letters of fire.

In the center of all this brilliant scene rose a gigantic shrouded figure, lifting its impressive height almost to the beams above. Around it was massed a throng of expectant people. Suddenly the shroud fell, and a beautiful Corinthian pillar, starting from a graceful colonnaded pavilion, stood revealed. For a second it stood in all its cold beauty, and then came a burst of electric light from the search lights in the gallery. The radiating shafts focused on the tower, making it shimmer and sparkle with their radiance. Above the capital was poised a huge lamp, built up of 30,000 pieces of crystal. When the white rays glanced on its thousands of facets myriad lances of sparkle glinted all around.

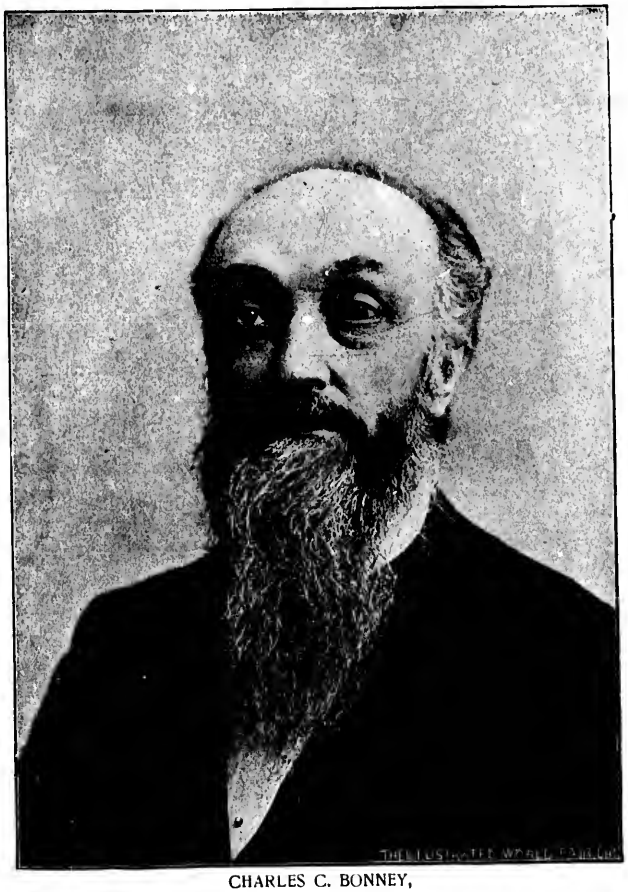
Then the soft sweet melody of Strauss' familiar "Blue Danube" came from Sousav's orchestra and Electra sought music for a partner in the dance. The crystal bulb suddenly burst into a million diamonds. High in the air the jewels flashed as if imbued with life, and the open-eyed thousands below sought relief in long-drawn sigh of wonder which achieved the volume of a strong wind's voice.

The waltz grew merrier and to the dancing measures lines of purple light shot the length of the pillar. As daintily as a maiden the incandescent fire tripped up and down, flashing first on one side then another. When the purple dancers had made the circuit, golden-hued lights took their places, and then suddenly, as if the figure of the dance were finished, all the purple lights shot out and the column was fluted with lustrous bulbs. The wizard wand moved and the gold appeared. Another wave and every one of the 5,000 purple, white and gold lamps sprung into being, and the tower of light became an indescribably beautiful specimen of pyrotechnical still life.

It was the glorification of Edison. Some man called the name aloud, another took it up, and a thousand voices shouted in honor of the man whose brain wrought out the marvels sparkling before them. The tower of light was a pillar of fire, and cheer succeeded cheer as the glorious spectacle illuminated the space.

In the pavilion beautiful electroliers were suspended, transforming the classic dome into a crystal cave with stalactites of pearl, amber, rubies and sapphires.

All this was in the center of the building. Up in the north end revolving lighthouse lenses sent their strong rays into the eyes of the people, while above them the twinkling notes of electric pianos fought against the united blares of Sousa's horns.



CHARLES C. BONNEY,
President of the World's Congress Auxiliary.

The Electricity Building carries out the Spanish renaissance idea, modified by a Corinthian treatment. It is 345 feet wide and 700 feet long. The general scheme of the plan is based upon a longitudinal nave 115 feet wide and 114 feet high, crossed in the middle by a transept of the same width and height. The exterior walls are composed of a continuous Corinthian order of pilasters, 3 feet 6 inches wide and 42 feet high, supporting a full entablature and resting upon a stylobate 8 feet 6 inches. The total height of the walls from the grade outside is 68 feet 6 inches. At each of the four corners of the building is a pavilion, above which rises an open tower 150 feet high. The building has an open portico along the whole of the south facade, the lower or Ionic order forming an open screen in front of it. The various subordinate pavilions are treated with windows and balconies. The details of the exterior orders are richly decorated, and the pediments, friezes, panels and spandrels have received a decoration of figures in relief, with architectural motifs, the general tendency of which is to illustrate the purposes of the building. In the hemicycle on the south front stands the fine statue of Franklin, by Rohl-Smith. The appearance of the exterior is that of marble, but the walls of the hemicycle and of the various porticoes and loggias are highly enriched with color, the pilasters in these places being decorated with scagliola, and the capitals with metallic effects in bronze. The building with its large window spaces and high central and corner towers is especially designed for electrical illumination by night, and considered as part of this display are the beautiful electric fountains which show their magic splendors at the head of the basin to the south of the building.

CHIEF BARRETT

Chief John P. Barrett was born in Auburn, N. Y., in 1837, and went to sea at 11 years of age, which pursuit he followed until he was injured at the age of 22. He then came to Chicago and was appointed a watchman in the Fire Department and was at once assigned to duty in the telegraphic branch of that department, and advanced so rapidly that in 1876 he was appointed city electrician, which position he still holds. In February, 1891, the Director-General appointed Mr. Barrett Chief of Electricity of the World's Fair. He is one of the most approachable and one of the most unostentatious officers at Jackson Park, and his department is one of the most superb and brilliant in every way.

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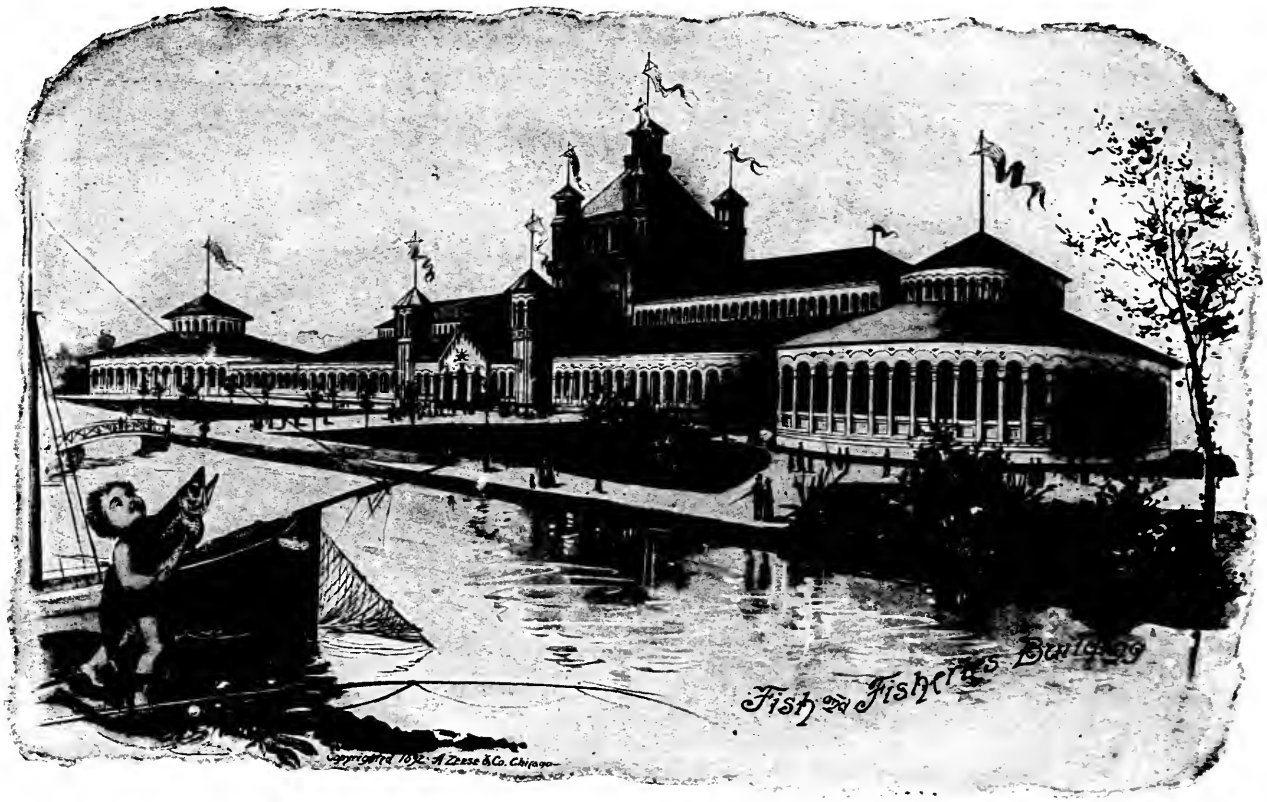
Fish & Fisheries Building
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CHAPTER XV.

FISH AND FISHERIES BUILDING.

One of the Greatest of All the Resorts—Magnificent Display of Many Kinds of Fresh and Salt Water Fish—Minnows and Aligators Under the Same Roof—Some of the Best Known Denizens of the Atlantic and Pacific Oceans and the Gulf of Mexico are in the Swim—Speckled Trout from New England Rivers and Dolly Vardens from the Streams of California—Carp and Suckers Move Lazily About—Perch, Pike and Pickerel in the Same Tank—Bass, Flounders, and Salmon Turn Up Their Aristocratic Smellers—Gold Fish and Other Gaudy Species Splash Merrily Around —The Sturgeon and Showbill are Spaciously Quartered—Sketch of Chief Collins.

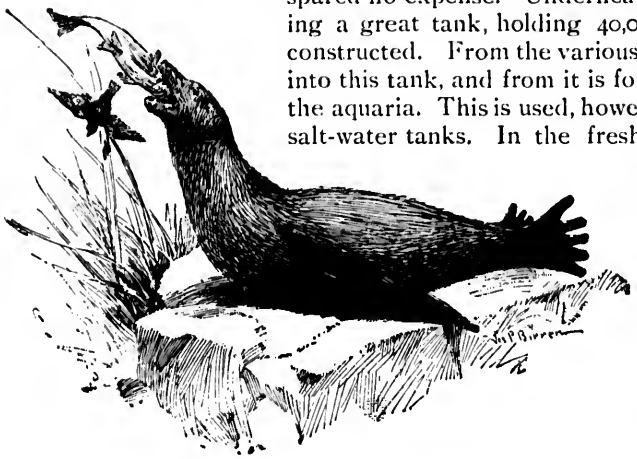
MEN, women and children are alike inevitably drawn toward the Fish and Fisheries Building. The acquaria, which is the largest but one in the world—that at Brighton, near London—occupies the entire eastern annex to the main fisheries building. In the center of the building is an open basin four feet deep with a diameter of twenty-five feet. The tank decorations consist of stalagmites grouped in artistic designs around the borders of the circumference and in the center, where a fountain is kept constantly dripping fresh water into the basin and among the flora at various points. Surrounding the basin glass tanks complete another circle equi-distant between the circumference of the basin and the circular row of tanks along the walls of the building. A six-foot passage way with cemented floor affords ample walking space for sight-seers in front of the outer row of tanks and on both sides of the inner circle. The average depth of the tanks when filled with water is five feet. In length they vary from six feet to sixty feet. Two-thirds of the space is reserved for fresh-water fish; the remaining space is given up to denizens of the sea. All of these tanks are decorated in much the same way that the center basin has been decorated. Calcareous tufa, a limestone formation found in certain springs in Toledo, O., has been used profusely in making the decorations which represent miniature submerged mountains, etc. Various bits of vegetable matter coated with limestone form rough, fantastic designs. These have likewise been used for decorative purposes, and in building the tiny grottoes and reef a dark cement has been used to unite the tiny stones. In the holes and crannies black earth was deposited, and it is in this soil that aquatic plants were planted.

The inmates of these tanks swim about as freely as if no glass sides stood

between them and freedom. Minnows of all sizes and classes; trout speckled with delicate brownish black circles, iridescent stripes, and whitefish specked in dazzling kaleidoscopes of color; goldfishes and flounders, perch, bass, and half a score of other kinds may always be seen. The water supplied to them is filtered, and, though of the purest quality, as seen through the glass looks a dull, muddy, sea green.

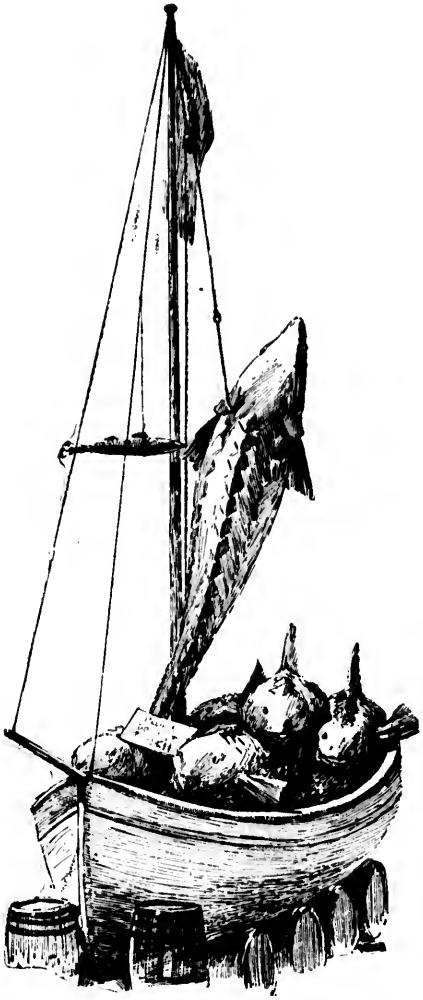
In these salt-water tanks all the known fish specimens of the Gulf of Mexico and the Atlantic and Pacific oceans may be seen.

The central basin contains the showy fishes. To minimize the danger of failure in transportation and transference of these live specimens, the government spared no expense. Underneath the floor of the building a great tank, holding 40,000 gallons of water, was constructed. From the various aquaria the water trickles into this tank, and from it is forced by a pump back into the aquaria. This is used, however, only in the case of the salt-water tanks. In the fresh-water basins pure filtered water is always used. Inside the glass walls and four feet above the water line is a two-inch pipe, with small stopcocks about ten inches apart. Water is fed through these pipes, with the flow regulated according to the drain pipes which lead to the sewer. This water is kept at all times at a temperature as near 60 degrees Fahrenheit as possible. The aquaria is the only place in the Fisheries building where live fishes are exhibited. The main building is given up mostly to exhibits of the products of the seas and rivers, and the west annex is used for the anglers' display. Entering the main building from the north, the first display offered the sightseers is that of Mexico. Fish propagation is a feature of this exhibit. Passing from there to the side aisle comes the Russian collection, unique in many ways, with a wealth of caviare perfectly bewildering. Next to it is Norway's space. Dried cod of the Lofoten Isles and spiced anchovies of Bergen, are displayed. Many full-sized fishing boats are also shown, among them old Norse and Viking ships. Great Britain is at the extreme western end of the building. Its display is not large, but very interesting. France, Australia and Canada next follow in line, while the exhibits of Japan and the Netherlands are located in the northeastern quarter of the building. All of the odd shaped boats used in the Japanese fisheries, together with the apparatus, implements, and products are displayed with much taste and decorative effect. Canada has a large and exhaustive exhibit. Brazil makes a feature of its fishing-boat



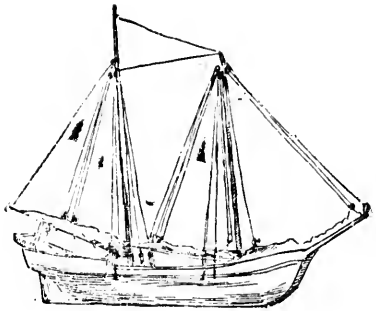
SEAL SWALLOWING A FISH.

display; and of the States, Wisconsin and Pennsylvania display prominently the propagation and culture of fish. Rhode Island shows its menhaden fisheries in full, fine models showing purse, mate and strike boats being a feature of the exhibit. Altogether the fisheries department is an interesting building to visit and affords a rarely attractive display even to people whose lives have been spent away from the association of rod and reel. In April last the author, who met and had a long conversation with Marshall McDonald, United States Fish Commissioner, was informed by that official that the exhibit, which would be nearly complete by the middle of May, would be as fine as any in the world, and he kept his word. This is what the Fish Commissioner said:



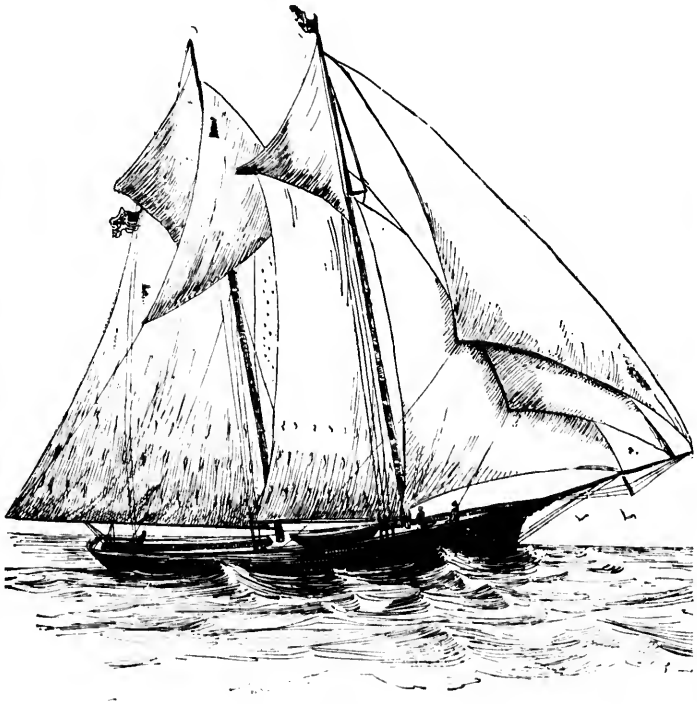
STURGEON OF NEW YORK.

"This display will be one of the most interesting on the grounds, and when it is complete will contain specimens of all the fish found in the waters of the American coast and lakes and rivers. Salt water specimens will include sharks, swordfish, dolphins and porpoises, but our plan to bring a baby whale was found to be impracticable. We will show also how these fish are caught and by statistics demonstrate the value of the American fishing industry. "The exhibit will come from all our collecting stations throughout the country. The different sections of the aquaria will be finished to represent the bottoms of the sea, the lakes and rivers in which the fish are found.



GRAND BANKER OF 1741.

The salt water fish will be placed in salt water, seven car loads of which are now on the way to Chicago. Thirty thousand gallons more will be made from lake water and the sea salt water sent here last winter from Massachusetts and added to what comes in these cars. The water for fresh water specimens will be filtered, so that it may be transparent. Fish will come here first from the nearest distributing points, and when they have been put in the aquaria we will send our cars to the more remote stations. It is probable that the car will not be sent to Oregon for the exhibit of salmon before May. "The most beautiful feature of the exhibit will be an anemone grotto. The anemone looks like a plant when opened up. (Shapeless and colorless when closed, it is, when it expands its arms that look like tendrils and are of the most delicate coloring, that they are beautiful.) The grotto will be paved with bits of coral and shells and sea grasses will lend their beauty to the picture. This and more that is marvelous from the bottom of the sea we intend showing. If we can get a school of porpoises we may put them in the lagoon, as they will not live in the aquaria. The exhibit is to be made geographically, so as to show in sections together all the fish peculiar to the different parts of the country. The great divisions are the New



A CLIPPER OF TODAY.

England coast, middle Atlantic, gulf district and Pacific coast for the salt water fish, and the New England states, lake region, Mississippi valley, and the west for fresh water fish."

All that the Commissioner said, and more, has been faithfully carried out. And so attractive has been the Fish and Fisheries Building, that the dullest day has always found it crowded.

Ten of the individual States of the Union show collective exhibits of the fisheries of their waters. Another interesting feature is the weather-worn fishing boat used by the famous Ida Lewis—the American Grace Darling—in her heroic life-saving deeds. Approaching the Fisheries Building from either front, one is impressed with its beauty and general grace of construction. The tall dome towers high above the gables of the main structure, while the small turrets that adorn the dome and main entrances appear in pleasing contrast with the red-tiled roof, columns and arches. Flanked on both the east and west by small pavilions and connecting arcades, the whole presents an architectual view that is surpassingly unique and beautiful. The infinite detail of fishes and other acquatic animals with which the columns, arches, and friezes are decorated in bas relief is gratifying to the eye, and the skill and ingenuity displayed by the ornamentation are as remarkable for originality as for fitness. The extreme length of the building is 1,100 feet and its cost was $200,000.

SKELETON OF A WHALE IN FISHERIES BUILDING.

All things considered the Japanese exhibit at the Exposition is the most remarkable of all. It is remarkable in its comprehensiveness, in its beauty, and in its peculiarities. The Government of the Mikado was not stingy in preparing for the display of the prosperity of the advancement of its country. The diet appropriated 630,000 yen, or $500,000, the sum being exceeded only by Germany, France, and Illinois. Beside the Phœnix Temple on the Wooded Island, the tea-house and the bazaar on the Plaisance there are exhibits in the Woman's Building and in the Departments of Agriculture, Art, Fisheries, Floriculture, Forestry, Liberal Arts, Manufactures, Mines, and Transportation.

But the fisheries is probably the most unique exhibit. Inasmuch as Japan is an insular country it is natural that fishing should be one of the leading occupations

of the people, and that fish, seaweed, and other marine products should be common diet. But the industry of fishing from ancient times down to the opening of Japan was a simple occupation somewhat limited in its scope. Since, however, the Japanese have learned from other nations to what extent marine industries are capable of development, fishing has become with them the source of many and varied lines of business.

The exhibit is in the northeastern part of the Fisheries building. Over the doorway hangs the Japanese flag above a sort of curtain of nets; and above the door is a sign with the name Japan made of shells of "awabs" (sea-ear). Immediately on the left and right of the entrance are piled up cans of fish. This industry is entirely modern, but is growing rapidly. In ancient times canning was unknown

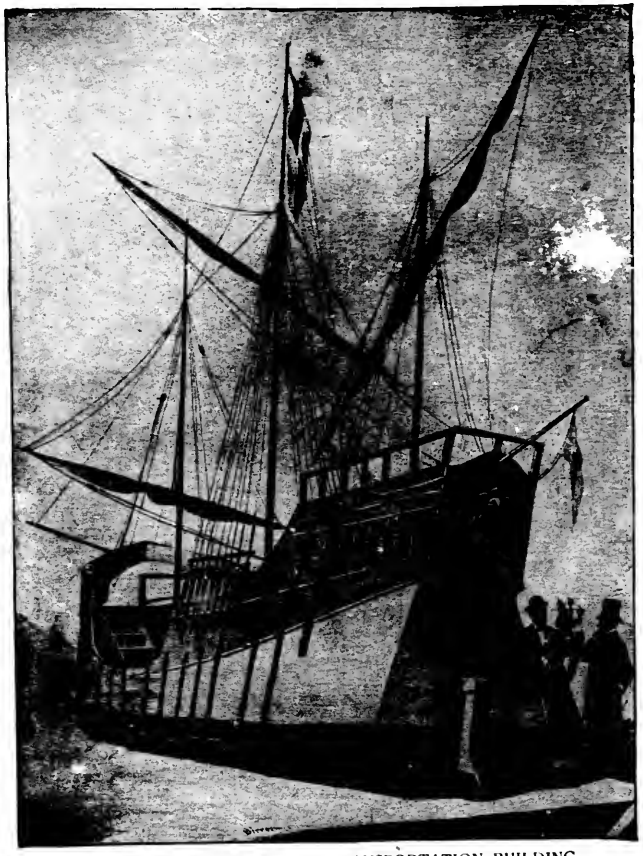
MODEL OF INDIAN FISHERMAN, MINNESOTA EXHIBIT.

as a method for preserving fish, though the pickling process was employed. Fish were, and are eaten raw, boiled, and pickled in shell or "shoyn" (soy). Epicures delight in eating fish fresh from the sea or river, and scarcely dead. When the Emperor of Japan in 1890 made a visit to Mito he was treated to large live salmon out of the Naka River. The canned goods in the Japanese exhibit are those of tai, or perch, wafer cake, "unagi-kaba-yaki," (roast eels), green turtle, mackerel, lobster, oyster, "maguro" (tunny), tortoise, salmon, (under the name "saumon," and spring salmon.)

There are also shells; glass cases of salt-cod, dried anchovy, broiled smelt, sardines, smoked salmon, bonito, dried flounder, boneless herring, bottles of fish oils of many kinds, edible sea-weed, oyster sauce, and kegs of similar articles. The various kinds of apparatus for catching fish are also exhibited; the hooks, the lines, the bamboo rods, the nets of silk or other materials, the prawn pots.

Smelt fishing by means of cormorants was employed more in olden times but is kept up somewhat to the present day. The fishermen catch their cormorants by setting wooden images of the birds in places which they frequent, and then covering

MODEL OF THE VIKING SHIP,
That Crossed the Atlantic Ocean to be at the World's Fair.



MODEL OF SANTA MARIA IN TRANSPORTATION BUILDING.

the surrounding branches and twigs with bird-lime. One bird thus caught becomes the decoy for more. These cormorants are so valuable that their owners are said to provide them with mosquito nets during the summer. Cormorant fishing is always done at night by torch-light. A skillful fisher can handle as many as twelve cormorants at once, and many catch 155 good-sized fish an hour by each cormorant. Every bird in a flock has and knows its number, and one of the funniest things about them is the quick-witted jealously with which they invariably insist, by all that cormorant language and pantomime protest can do, on due observance of the recognized rights belonging to individual numbers. The birds are numbered and named. No. 1, or Ichi, is the senior in years, as well as rank. It is the last to be put into the water and the first to be taken out, the first to be fed and the last to enter the baskets, in which when work is over, the birds are carried from the boats to their domicile. If, happily, the lawful order of precedence be at any time violated, the rumpus that forthwith arises in that family is a sight to see and a sound to hear.

The method of getting shellfish called shijimi, a staple article of diet in some parts, is also novel. The occupants of a boat are usually man and wife, though sometimes only one person manages the whole affair. The boat is tied to a long bamboo pole, secured at some distance in the river. The woman manages a wheel, by which she gradually pulls the boat nearer the pole, while the man, with a basket attached to another long bamboo pole, scoops up the shells as the boat moves.

There are also in the exhibit in the Fisheries building models representing the apparatus and furnaces for curing bonito, a sardine press, and the boats used in catching bonito and cod. The latter, directly in front of the entrance, are one-tenth of the actual size. The bonito, called "katsuo," is of solid flesh, and is a great favorite with both natives and foreigners. Especially common in use is kat-suo-bushi, dried and smoked bonito, cut into thin slices and employed to add flavor to vegetable dishes. Sardines, "washi," also are common diet, and are sold at the cheap rate of half a dozen for a cent. Fried, they make as good eating as when put up in oil.

On the walk of Japan's space are pictures of various scenes connected with the fishing industry, also a group of gold fishes. On the outside at the left of the entrance are drawings of many kinds of fish and of oyster-culture grounds.

The occupation of a fisherman, though arduous, is not entirely prosaic. It is attended, of course, with dangers sufficient to make it exciting, and it brings with it in success incomparable exultation. One of the most exhilarating sights in Japan is the return home of the fishing smacks in the afternoon. The beautiful sight of the sea dotted with white sails has appealed so strongly to the esthetic sense of the Japanese that it is included along with "the autumn moon," "the evening snow," "the night rain," "the temple bell," "the evening glow," in the "eight beauties" of a province. The boats as they approach the shore take in sail and are propelled by sturdy rowers much in the fashion of old Roman galleys. As there is no wharf, they are beached stern foremost, so that they are all ready the next morning at 3 or 4 o'clock to be pushed off easily.

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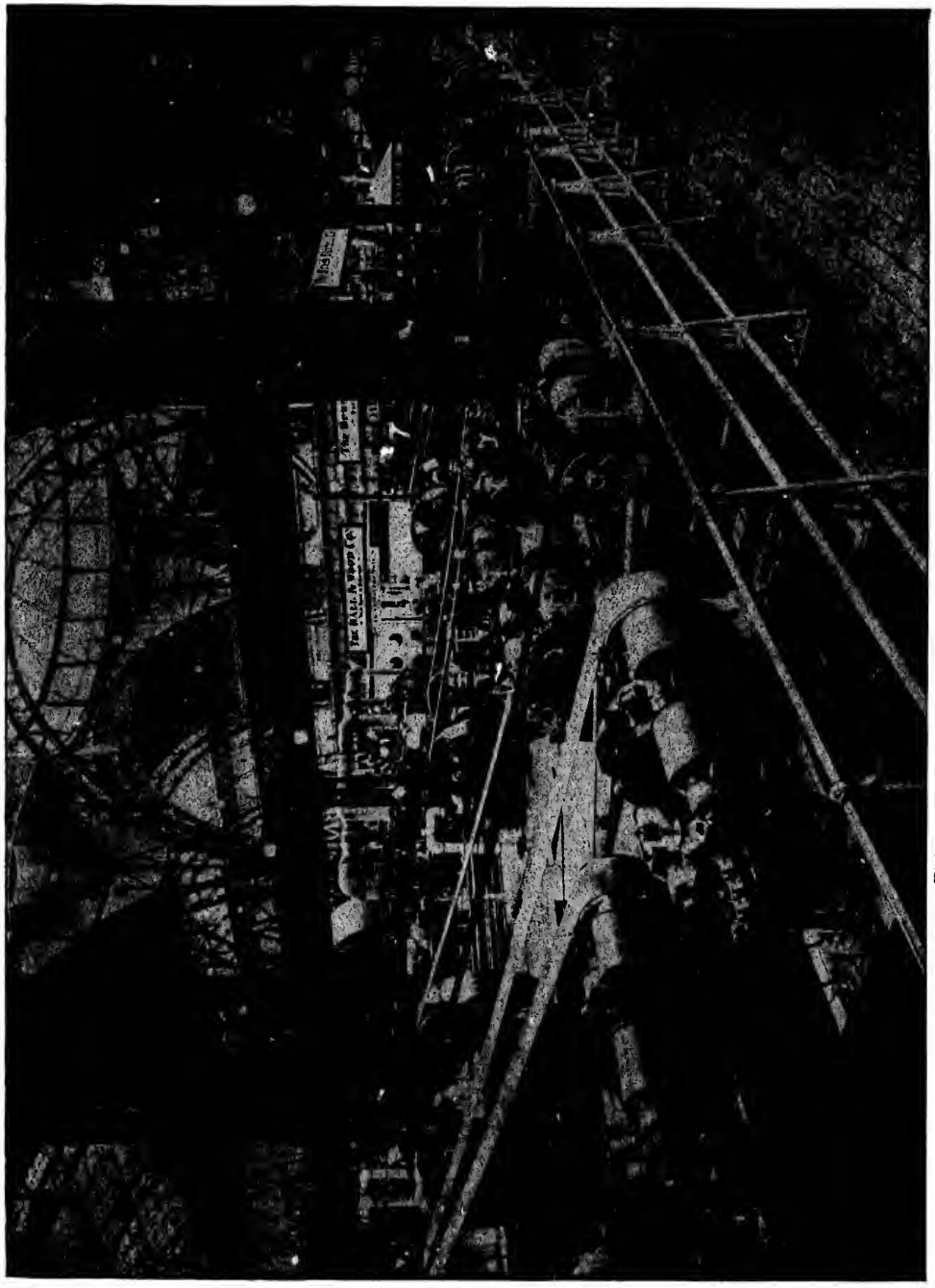

THE EXHIBIT OF BALL & WOOD, ELECTRICITY BUILDING.

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A dozen or so fishermen consider 800 fish a good catch for a day, and if each one realizes, besides fish for his own household, 20 or 25 cents for his labor, he deems himself fortunate. That sum is ample to keep up a bare existence in wretched huts. But the Japanese fisherman can be made satisfied and contented with only a little, and never murmurs or complains at his hard luck, and never envies the better fortune of others.

The fishermen of Japan, as a class, are ignorant and superstitious. They believe that if a man while going to fish, meets a bonze (Buddhist priest) on the road, he will catch no fish, as the bonzes eat no fish. Worship at a Shinto temple is supposed to aid in securing a large catch; and thanksgiving offerings of old anchors or parts of the vessels or of fish will naturally serve to propitiate the anger of the sea god. Shipwrecked mariners, rescued from impending death, are accustomed to hang up votive tablets in temples, and to offer to the gods any relic which also may have escaped the sea.

When the great Japanese hero, Yamato-Dake, who probably is only a mythological personage, was waging war against the enemies of his country, he reached Yedo Bay, and, looking across the comparatively narrow passage, thought it no difficult matter to get to the other side. But after he embarked, the sea god, to punish his insulting arrogance, aroused a great storm which threatened to overwhelm the boat. Then Tachibona Hime, the wife of the hero, bidding her lord farewell, leaped into the waters as a victim to appease the sea god's wrath. Later Yamato-Dake chanced to find on the shore his wife's wooden comb, and, erecting an altar, he dedicated the relic to the gods. On the same spot still stands a Shinto shrine, where the spirits of the hero and the heroine are yet worshiped by fishermen and sailors.

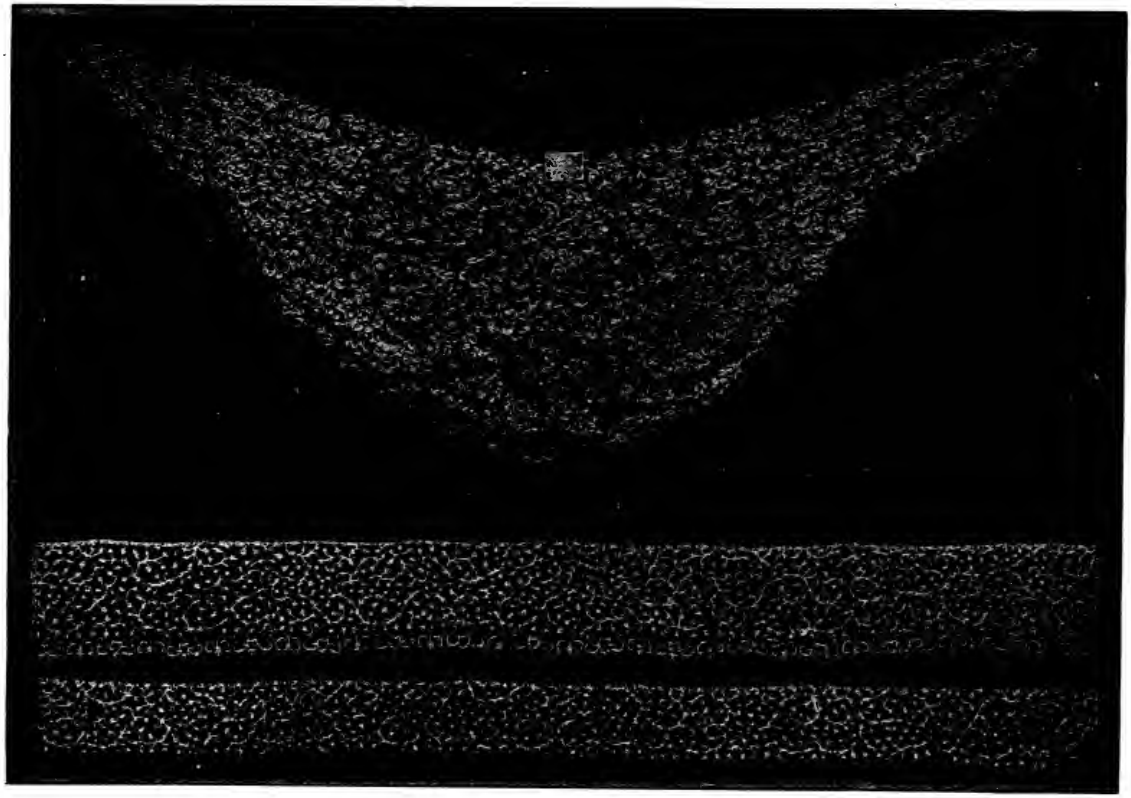
"Fish are prolific," said an official connected with the United States Fish Commissioner's exhibit to the author one day. "Huxley has said that if all the eggs of one mackerel were hatched and if all the eggs of the next two generations also were hatched the space now occupied by the ocean would be filled solidly with mackerel."

"Where is the need, then, for a Fish Commissioner?"

"The Fish Commission is needed on account of one kind of fish eating another kind. Some kinds of fish feed on young fish, and so do many kinds of birds. Indeed the spawn of some fish is the regular food of other fish. Perhaps it is a good thing, on the whole, that the breeding of fish is restricted in this way; but the restriction has been overdone so far as the fish that are most useful to mankind are concerned."

"What was the origin of the Fish Commissioner?"

"It originated with the appointment of Prof. Spencer F. Baird by Congress in 1872, to investigate the cause of the decline in the fisheries of the United States. At that time there was an alarming disappearance of the best food fish from some of the waters of the country. They had simply been destroyed by other fish and caught by the fishermen. What would have been our condition now if nothing had been done it is hard to tell. However, the result of Prof. Baird's investigations



ANTIQUE RAISED VENETIAN POINT LACE. EXHIBITED BY THE COUNTESS TELFENER.
FLOUNCE VENETIAN POINT XXII. CENTURY. EXHIBITED BY THE COUNTESS DI BRAZZA, ITALY.

and recommendations was that in the same year the United States Fish Commission was instituted, with him as the first Commissioner."

"What has been accomplished since then?"

"In brief, hatching and rearing stations have been established at Grand Lake Stream, Green Lake, and Craigs' Brook, Me.; Gloucester and Wood's Holl, Mass.; Havre de Grace and Bryan's Point, Md.; Central Station and Fish Pond, Washington, D. D.; Wytheville, Va.; Duluth, Minn.; Alpena and Northville, Mich.; Put-in-Bay, Quincy, Ill.; Neosha, Mo.; Leadville, Colorado.; Blackamas, Ore., and Fort Gaston and Baird Station, Cal. Appropriations have been made for stations in Vermont, Montana, and Texas. The result is that an immense quantity of useful fish have been hatched and the waters of the country stocked with them. Since 1872 the commission has hatched and distributed 1,500,287,409 whitefish, 968,643,350 shad, 332,046,700 yellow perch, 178,241,500 cod, 98,101,446 salmon, 3,005,054 rainbow trout, 2,027,028 brook trout, and other kinds of fish by the millions."

"What has been the effect on the fish supply?"

"Beneficial, of course. The catch of shad has been doubled, and the disappearance of the whitefish has been arrested. Numberless rivers and lakes from which fish had disappeared have been stocked, and certain kinds of fish have been made to thrive where they were never known before. The Pacific slope has probably been benefited more than any other part of the country."

"What was the origin of the artificial propagation of fish?"

"That is a long story. The first man who accomplished it was J. L. Jacoby, of Westphalia. This was in 1872, though two Frenchmen, named Remy and Ghazin, discovered the art independently in 1840. The first person who hatched fish artificially in this country was Theodosius Garlick, of Cleveland, O., in 1853. The process is simple, but it has improved materially since first discovered. These exhibits that you see scattered around in this part of the building are intended as an object-lesson in the history and progress of pisciculture. Fish could be hatched artificially for a long time before it was understood how to do it without having them attacked and killed at once by fungi."

"What is the process, in brief?"

"The first operation is illustrated in that boat that you see there with two fishermen in it. The man standing is catching shad in a net, and passing them to the man sitting behind him, who is pressing the eggs out of the fish into a large pan. The milky fluid from the male fish is pressed out into the same pan, in the same way. The fish are not only not injured but are sold and eaten. The eggs, which are by the process fertilized, are carried to the hatchery to be hatched out. One cod fish will yield 250,000 eggs and one shad from 30,000 to 120,000.

"What is done next?"

"Fish eggs are hatched by the movement of water over them, and consequently they are divided into three classes. The first class is the buoyant, such as perch eggs; the second is semi-buoyant, such as shad and whitefish eggs; and the third class is heavy, such as salmon and trout eggs. Buoyant eggs are hatched by an imitation of a tide. They are put into a box in which the water is made to

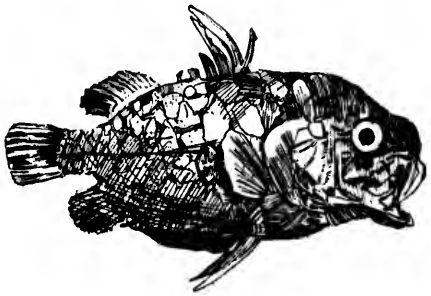
ANTIQUE RAISED VENETIAN POINT LACE. EXHIBITED BY THE COUNTESS TELFENER.
FLOUNCE VENETIAN POINT XXII. CENTURY. EXHIBITED BY THE COUNTESS DI BRAZZA, ITALY.

alternately rise and subside. The semi-buoyant eggs are hatched by passing water up between them from below. You see them in those glass jars, where water is let in at the bottom and runs over at the top. The heavy eggs must be hatched by depositing them in trays and having the water pass over them, as you see done in the long narrow boxes. If you will scrutinize the eggs in the glass jars you will see the fish in the eggs, and as soon as they are hatched they pass off with the water and are put into tanks to be fed and reared. All this is illustrated in the apparatus of the exhibit. Great, isn't it?"

Captain Joseph W. Collins, chief of the fish and fisheries department, was appointed to that position Feb. 18, 1891. He was born at Ilesboro, Waldo County, Maine, Aug. 8, 1839. His boyhood was spent as a fisher lad, and in the winter months he attended the county school of his native village, where he received his primary education. His latter education was obtained on ship-board, where he perfected himself in mathematics and navigation. Captain Collins began his career in 1862, when he was appointed captain of a fishing vessel running out of Gloucester, Mass. In 1879 he became connected with the United States Fish Commission. His first work was a statistical inquiry into the fisheries of New England, for the Tenth Census. In 1880 he was appointed on the staff of the United States Commissioner to the International Fischerei Austelling at Berlin. In 1880 he went to London to represent this country and to assist in arranging the United States exhibit at the Great International Fisheries Exposition. In 1886 he invented a new type of fishing vessel, which was adopted by Professor Spencer F. Baird, then United States Fish Commissioner. In the winter of 1887-88 he was called to Washington for consultation by the International Fish Commission, which was then negotiating the fishery treaty with Canada. In 1888 he was appointed in charge of the division of fisheries of the United States Fish Commission, and has since had charge of that work. In the same year he was also appointed as representative of the Fish Commission to prepare its work at the Centennial Exposition of the Ohio Valley and Central States, held at Cincinnati. In 1889, at the solicitation of the Hon. Robt. P. Porter, Superintendent of the Census, he accepted the position of special agent of the Eleventh Census, in charge of the section of fisheries; and in 1890 he was nominated by the United States Commissioner of Fish and Fisheries, the Hon. Marshall McDonald, to represent that bureau on the government board of management and control at the

CHIEF COLLINS.

World's Columbian Exposition. Captain Collins not only prepared the fish commission's exhibit at the Fair, but he has contributed largely to the fish and fish-culture literature of the country, and is a member of many scientific societies at home and abroad.



Art Palace
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CHAPTER XVI.

THE PALACE OF FINE ARTS.

A Magnificent Building Throughout—Paintings and Statuary From All Parts of the World—Private Collection of Painting From Many Homes—Pictures of Every Phase of Life and Nature—Animal and Portrait Paintings From All Lands—Hundreds of Beautiful Marine and Landscape Sketches—Allegory and Mythology From Imperial Galleries—Schmidler's "Market Scene in Cairo"—Canon's "Hunting Master"—The American Loan Association—Joe Jefferson "The Mauve"—Hovendin's "Breaking Home Ties"—The Emperor Francis Joseph's Loan—England Surprises With Her Beautiful Paintings and France Maintains Her Fame as an Art Center—Sketch of Chief Ives.

THE Fine Arts Building of C. B. Atwood, with its two annexes, is already famous for its architecture. It has even been called "the greatest thing since Athens." It is the largest art gallery ever constructed. There are in the building seventy-four galleries of varying size, ranging from 30 feet square to 36 by 120 feet. It contains many picked pictures and statuary and selections from nearly all the galleries of the world. The construction is necessarily fire proof, the main walks are solid brick covered with "staff" highly ornamented, while the roof, floors and galleries are of iron. It is severely classic in appearance, being of the Grecian-Ionic style. The main building is 500 by 320 feet with two annexes, each 120 by 200 feet, giving a total floor area of 4.08 acres. The great central dome is 125 feet high, capped with a colossal statue of Winged Victory, and is 60 feet in diameter. The building is located in the northern portion of the park facing the lagoon on the south and the handsomest state buildings on the north. It is surrounded with verdant lawns which on the south are terraced down to the balustrades on the water's edge. There is an immense flight of steps leading down from the main portal to the lagoon where there is a convenient boat landing. It cost $735,811. The main building is intersected by a nave and transept 100 feet wide and 70 feet high; between the promenade and the naves are the smaller rooms devoted to private collections of paintings and the exhibits of the various art schools. There are 145,852 square feet of wall space, and the artists of all countries seem to vie with each other in the delineation of figure painting; animal, child, character and portrait painting; marine and landscape sketches, still life, Scriptural and mythological genre, allegory, interiors, and pictures of every phase of life and nature.

As there are many thousands of paintings and statuary from all the art points and galleries of Europe and America, Australia and Japan, and from other countries

the author must content himself mentioning a few—conspicuously those in the three rooms filled with the American loan collection. Comment on the value of this part of the exhibition, considered both from an educational point of view and a monetary one, is unnecessary. So large and varied a collection of paintings of the same merit has never before been shown in this country. Even the famous Paris collection representing a hundred years of French art does not surpass it. Statistics in regard to the number of paintings and the various public-spirited people who have loaned them to the Exposition can alone be of use in emphasizing the generosity and promptness with which Miss Sarah Hallowell's appeal for loans was answered all over the country. Twelve Corots are in the three rooms, three pictures by Bastien Lepage, two of Rosa Bonheur's studies, "The Expulsion from Paradise," "Midnight Moonlight," "The Flight Into Egypt," and "Elsinore," by Jean Charles Cazin, and by Millet six of his most characteristic peasant pictures. The first room one enters is hung entirely with pictures representative of the impressionist school. There are Raphaels, Claude Monets, Pissaros and a Besnard, which, although they affect the uninitiated with a sense of rawness and incompleteness, are nevertheless to be regarded with interest if not with mixed admiration. In the second room there is greater variety and consequently more to please those who do not regard art from a critical or technical point of view. On one wall alone there is a wonderful collection. Alma Tadema's "Reading of Honor," loaned by H. ry G. Marquand, hangs in the center. To the left, a little beneath it, is Jules Dupre's masterpiece "At Sea," and to one side Corot's "Path to the Village." A splendid piece of color is Isabey's "Fete of the Hotel de Rambouillet." This hangs near a study of peasants by Joseph Israels, known as "A Frugal Meal." Largest of all the canvases is "The Country Festival," a study in rosy cheeks and graceful poses by Louis Knaus. Cazin's wonderful "Moonlight at Midnight," Jan Van Beers' essentially modern "You Are Welcome," and R. C. Bonnington's landscape complete the list on this side of the room. Scarcely less remarkable is the wall directly opposite on which are hung Harry Thompson's "Shepherdess," a simple peasant girl guarding her flocks on a sandy common; Millet's "Pigkillers," two Corots—one a landscape near Ville d'Avery, a Daubigny, and the famous Meissonier, "View Near Poisey—Reconnaissance."

GOLD FISH, BY FRED. W. FREER.

The last room glows with vivid eastern coloring, Jean Leon Gerome, Tassaert's "Temptations of St. Hilarion," and the striking tones of Carolus-Duran's

PORTRAIT OF AUGUSTUS ST. GAUDENS, BY KENYON COX.

"Odalisque" and "Portrait of Mme. Modjeska." In this room, too, there are three Corots, the "Orpheus," with its mysterious shadows, "Lot's Wife," and a landscape. The only Greuze in the collection, "The Pouting Child," and a landscape by John Constable, the English painter, are given space here, and on the north wall is a large study by Rosa Bonheur of sheep grazing on a hillside under a gray sky. Millet's "Man With the Hoe," "Haymaker" and "The Gleaners" are here to attract the attention of all who have learned to know his peculiar style and choice of subjects. Two pictures by Puvis de Chavannes, Jules Breton's "The Song of the Lark," "The Colza Gatherers," Delacroix's "Turks Abducting a Girl," two marines by Manet, "Cattle" by Troyon, and George Moreland's "Contentment" are some of the other pictures that are conspicuous.

Among the people who have generously loaned their art treasures to the Exposition must be counted Joseph Jefferson, who, although he parted reluctantly with "The Mauve." the gem of his collection, is now congratulating himself that it escaped the fire at Buzzard's Bay. Chicago connoisseurs have shown great liberality in sharing with the public their private collections.

Twelve paintings from Potter Palmer, eleven from C. T. Yerkes, six from Mrs. Henry Field, four from Martin H. Ryerson, and several by A. M. Munger and S. M. Nickerson are readily recognized on the walls.

THE SECRET—SCULPTURE, BY THEO. BAUER.

Probably the most popular picture among those painted by American artists and given space in the United States section is Hovenden's "Breaking Home Ties." It is a simple study of the living-room of an old New England farm house, showing the table set with quaint old china the mantel adorned with pieces of glazed ware, the high backed yellow chairs, and the ingrain carpet that every New Englander in the United States can remember if he looks back far enough. Two figures in the foreground command most attention—those of a woman with a careworn, anxious face and a boy whose expression indicates half a longing to try fortune, half a homesick lingering and loathing to leave home scenes. The boy's sisters, his father, carrying away an old-fashioned carpet-bag, and his dog are in the background. England makes a splendid show. The works of its artists are a revelation to the American people, as was the case in 1886 at the Art Exposition in Berlin, where the people up to that time considered Englishmen only as practical merchants. The Roman groups by Alma Tadema are realistic, and, at the same time, they present artistic dignity. Hubert Herkimer's excellent portraits, as well as landscapes and marine scenes by Dicksee, Moore and others, will attract the admiration of connoisseurs. England's artists are represented by 800 pieces by the best brushes, and valuable canvases loaned by private owners. Among many are shown the "Garden of Hesperides" and "Hercules Wrestling with Death" by Leighton, "Halcyon Weather," by Sir John Miller; "The Maiden's Race," Wegnin; "The River Road," Forbes, and "Storm at Harvest" by Linnell.

WORKMEN MOULDING STATUARY.

The German division shelters magnificent treasures of art exhibited by individual artists, also such loaned from the National Gallery. Herr Schnars-Alquist, Germany's Art Commissioner, has divided the exhibit into three prominent groups as to coloring, shades and subjects. One of the salons contains the historic groups. It represents the dignity and brilliancy of the German Imperial family. A colossal painting by Ferdinand Keller, an apotheosis emblazoning the reconstruction of the German Empire, covers the entire wall space in this room. This grand painting is the property of the National Gallery in Berlin. Emperor

LABOR, BY J. H. FRY.

Wilhelm I., Emperor Frederick and Prince Bismarck are made the life-size and prominent figures of the group. Bismarck's portrait is there by various masters. Thus the salon could be termed "The Bismarck," for in a certain measure the days of glory of Germany's first Imperial Chancellor are vividly recalled thereby.

A. von Werner's historic group, "The Berlin Congress," is a masterwork of portrait painting; here also the ex-Chancellor figures as the most prominent personage of his time; the participants of the "Congress," all European celebrities, are grouped around the Prince and listen to his explanations, his words, dictating peace to Europe. This magnificent painting is valued at $25,000, and will likely be purchased by the Germania club of this city. In this division there is also a striking portrait of Emperor William II. by Max Kroner.

ASSYRIANS SALUTING THE SUN.

Another collection in an adjoining room places the spectator in a solemn frame of mind; there are the religious and dramatic scenes, works of art of great value. The third division, containing several apartments, shelters Stilleben, German landscapes, portraits, groups and marine scenes by masters of international repute, such as A. von Werner, Molly Cramer, Gabril Max, Franz Simm, Fritz Uhde, Eugen Ducker, Max Bredt, Edmund Harburger, Menzel, Lenbach, Schnars-Alquist, Liebermann, Schuch and others. Among the works of sculpture Boths' marble statue, "Eve," causes as much sensation as the various pictures of Columbus are causing doubt relative to their genuine-

ness. On the galleries of the German section one will find drawings, portraits by Menzel only a few inches in circumference, which vary in price from $1,000 to $5,000. The majority of visitors—laymen, of course—pass these works of art, and if they were probably offered at 50 cents each the average visitor would still hesitate buying; nevertheless they are works of art of high standing, for which connoisseurs abroad are paying the mentioned prices.

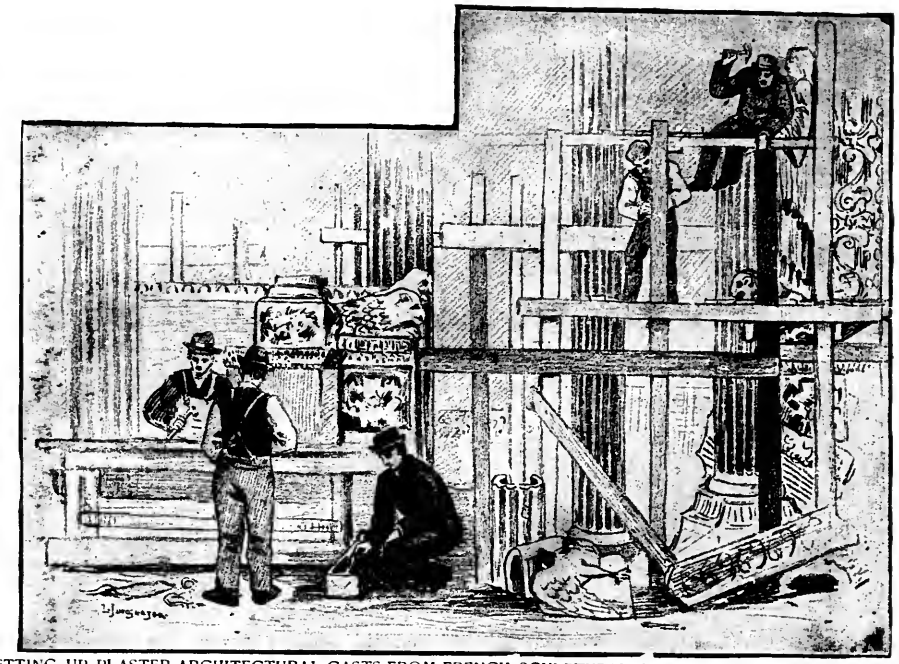
Germany has 580 paintings and 120 sculptures of bronzes and marble. Among the oil paintings are Professor Oswald Achenbach's "Near Naples." T. Alberts' "Alone," Paul Andorff's "Village in the Spessart," Albert Arnz' "Still Life on the Game Preserve," Hans Bachmann's "The Morning of the Wedding Day," Professor A. Baur's "The Martyr's Daughter," Theodore von der Beeck's "Cigarette Manufactory" and "On the Heights," Carl Becker's "Vidette," Professor E. Bracht's "Sinai," Professor J. von Brandt's "The Surprise, "Professor Hugo Crola's "Industrious Sisters," H. Deiter's "On the Brook," Professor Eugen Duecker's "Summer Eventide," Albert Flammi's "Italian Women at the Fountain."

The collection of Holland includes some 400 canvases by about 50 artists, 13 of whom are women, and only two of the 50 are catalogued as portrait painters. The pictures are none of the large variety and are mostly humble, modest subjects with nothing of the dramatic style. Mme. Henrietta a Ronner who has been called the "only painter of cats" has a large collection of felines, the most natural kittens and tabbies ever seen. H. W. Mesdag and Josef Israels are the greatest of the Dutch school and send many marine and domestic pictures. The whole collection rivals that of France, France being looked upon as the leader in modern art. As well as her splendid paintings and sculpture from the Louvre and other well known galleries, France displays in her department six of the marvelous Gobelin tapestries, figures in ivory adorned with gold, jeweled cases with reliefs of Brateau and enameled cups by Thesmar. One canvas seems as beautiful as another and it is difficult to specify.

Sweden has over two hundred subjects and has three pictures by His Royal Highness, Prince Eugene, of Norway and Sweden. Among the artists are names well known in art circles outside of Sweden and Paris.

Japan, Spain, and Italy exhibit paintings and statuary equal to if not excelling all these. The Viennese paintings are 200 in number and would have been fewer had not the Emperor Francis Joseph sent a number of his own and induced others to contribute. The walls in the Austrian section are painted a Nile green, the same color as used in the imperial gallery in Vienna. This is a marked departure, as in nearly all cases the tone used in decoration is dark. There are five allegorical paintings by the celebrated Hans Makart, loaned from the Emperor's private collection.

Austria's most famous woman painter is Mme. Weisingn, who sends three, all of which have been awarded medals at the exhibitions in Vienna. They are "Morning at the Seashore," "Breakfast in the country" and "The Laundress of the Mountains." Prominent among the landscapes are Schindler's "Cemetery in Daimatia" and the "Hunting Master" by Canon, which is loaned by Count Hans



SETTING UP PLASTER ARCHITECTURAL CASTS FROM FRENCH SCULPTURAL EXHIBIT, IN FINE ARTS BUILDING

Wilczek, of Vienna. The celebrated "Market Scene in Cairo," by Leopold C. Muller, is one of the best pieces of figure painting in the collection. Then there are pictures by Brozik, Tilgner, Schanger, Thoren, Pansenger, Mott and others equally prominent.

The exhibit by France maintains the dignity and credit of the new Republic as the heart of fine arts. There are more than a thousand choice contributions from worthy brushes, many of which represent the great national manufactories of France collected at the Palais d'Industrie. Sevres sends 200 exhibits, objects in clay and plaster, as well as more elaborate works. Among them may be mentioned "La Republique," a bust by d'Enjalberts, the portrait of M. Carnot, by Chapu; "La Paix," by Michael; "La Leda," by Suchetet; "La Catherine de Russie," by Deloye; "La Judith," by d'Aizelin; and the charming "Mozart Enfant" of Barrias. Finely decorated vases, amphoras, chalices, urns, etc., by Doat, Sandoz, Belet, Fournier, Bienvil, Vignol, and others will be displayed. Beauvais sends tapestries. Especial mention may be made of the six marvelous Gobelin tapestries, the largest of these being "The Goddaughter of the Fairies." Graceful figures in ivory, adorned with gold and on pedestals of worked filigree, jewel cases, decorated with reliefs of Brateau, and enameled cups by Thesmar are exhibited. Many of these works will remain in America.

Two famous canvases among others are sent from Belgium. They are "The Avenue of Oaks" and "Winter," works of the great landscape painter, Franz Lamoriniere. These were shown at the International Exhibition in Berlin, where "The Avenue of Oaks" received the great diploma of honor. In Paris the same picture and "Winter" brought about the artist's promotion to officer of the Legion of Honor and obtained besides a gold medal. There are 300 paintings from Belgium in all.

The space alloted to Denmark comprises Rooms 73, 74, and 75, in the southwest corner of the west pavilion and a small portion of the gallery of the east side of the south court. There are twenty works of sculpture in this section, the most notable being "The Captive Mother" by Stephan Sinding, which shows a woman with her arms bound behind her kneeling over to suckle her child; numerous portraits busts by P. S. Kroyer, who also exhibits as a painter; Johanne Dan's "Snake Charmer," and an excellent figure of "Susanne Before the Elders," by A. N. Saabye. Among the works of merit in this section are two portraits by Bertha Vegman, who is also represented by a small landscape with the figure of a little girl. In all of her work there is a strength and directness which makes it appear to be the work of a man.

By P. S. Kroyer there is a small garden scene which is full of light and fresh brilliant color, with the figures of two women sewing in the shade. This artist is also represented by an excellent portrait of a young girl in pink. Julius Paulsen is represented by a large picture showing three half-nude girl models in the corner of a studio awaiting the hour to pose. The interior of a "Children's Home," with a crowd of youngsters in a long room lighted at one end, crowding about two nurses who are feeding them, is by Kund Erick Larsen. The execution of this work is

SETTING UP PLASTER ARCHITECTURAL CASTS FROM FRENCH SCULPTURAL EXHIBIT, IN FINE ARTS BUILDING

excellent and the subject is one which must make it popular. Otto Haslund shows the interior of a stable with three well-drawn heads of cows. A large work by Oscar Matthiesen shows a team of cart-horses on a quay of the Seine in Paris. A grewsome subject painted by J. E. Carl Rasmussen depicts a party of shipwrecked sailors at sea in an open boat surrounded by sharks. Carl Lacher shows a fine marine with an effect of moonlight on a rough sea, through which a steamer is ploughing its way, and there are many others that might be mentioned.

Where all is acceptable and beautiful it is difficult to select. Everyone knows that Italy, France, Germany, England, and America would show off well. The German section alone includes 580 paintings and 120 sculptures. These works were selected by two juries—one making the rounds of the art centers of Germany collecting the works and a jury of revision passing finally upon them at Bremen. Among the names of the painters and sculptors are P. Barsch, Menzel, Desseman, Kallworgh, Kaulbach, Keller, Friese, Knauss, Koner, Lenbach, Normann, Seiter, Seitz, Karbina, V. Uhde, Dieters, Oberlaender, and Koepping, Bruett, Klein, Kruse, Wenck, Hurdneser, Unger, Begas, and Valcker. The German government paid the cost of transportation and the insurance of the exhibit, and such articles as are not disposed of at private sale will be returned to Germany.

The work which has been given the place of honor is the "Eve" by A. Brutt. It is an admirable work technically, and the conception of Eve as a mother carrying the infants Cain and Abel is one of marked originality. Two busts by Rheinhold Begas are fine examples of dignified and evidently successful portraiture. One of them is of Menzel, the artist, and the other is of Von Moltke. Two examples of polychrome sculpture are included in the exhibit in this room. They are bas reliefs by C. Hilgers and represent "Christ Healing the Sick" and "Christ raising the daughter of Jarius from the Dead." There is an excellent figure of a youth seated on an antique vase and pulling a thorn from his foot by Eberlein. The artist has taken an oft-treated subject and produced something original and pleasing. The figure has a fine "swing" in its movement, and composes well from all points of view. By Carl Begas there are two finely executed groups of nude figures light and pleasing in subject but by no means trivial. One of a young girl holding a baby boy, who is pulling her hair, is perhaps the stronger work, and one which might easily have become insipid and characterless in the hands of a sculptor of less ability.

Another of the works particularly worthy of study in the German section is the two busts of young boys on a single pedestal by Max Kruse, whose beautiful figure of the "Soldier of Marathon" is one of the strong works of those shown in the north court of the Art Palace.

The sides of the room and the pedestals on which the statuary stands have been painted in imitation of marble of various colors, and rich draperies and rugs decorated the doors and floor.

There seems to be considerable good portrait painting in Denmark. One example "Morten," by G. Achen, is a healthy, pleasant-faced coachman with livery,

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"A LEGEND OF THE DESERT."

whip, and cockaded hat. "Morten," it appears, is in Denmark the generic name of the coachman, as we should say Jehu in America.

The one portrayed, however, is quite individual, being the man who has for years driven the horses of the painter's friend Petersen.

Two women make a very good showing among their countrymen. Miss Bertha Weggman sends a landscape and three portraits, all painted with firmness and originality.

Elise Konstantin-Hansen has a modest painting of an oatfield with a small lad's flaxen head just showing above the high grain, and a big, white bird swooping down on the left.

Impressionism has made little headway in Sweden. Viggo Pedersen seems its one adherent with his "Sun Setting Over the Sea" in a vivid streak of paint, and his "Water Mill," in a peculiar, almost Japanese, perspective and a pool of purple water that flows like oil. Upstairs in the gallery there is a strong, almost theatrical, painting by Pedersen, "Isaac Seeing the Arrival of Rebecca."

Isaac was long-sighted, for the average visitor cannot distinguish Rebecca in the distance, but Isaac himself towers up against the sky, a strong, warm light falling on his head and shoulders, while the lower part of figure is in shadow.

The upper gallery, which has usually been considered a place of refuge for pictures of the lesser sort, has not been so treated by Mr. Matthiesen, the Danish commissioner. A small but fine marine of his own hangs here, "Gale on the West of Jutland," The large Pedesen already mentioned; "A Storm is Brewing," an important work by Carl Locher; "Glacier, on the Coast of Jutland," very bold and fine in color, besides many smaller works which keep the standard as high as the galleries downstairs in the annex.

By the way, there is apparently another Hans Dahl, or else the same man spells his name differently, and paints in two distinct manners. Coming down from the gallery, where the large academic "Storm" is one of the principal features, one stumbles upon a quite different "Evening Picture," signed Hans Dahl. Perhaps Danish artists have the trick of varying styles. Julius Paulsen shows three paintings which looks like the work of three separate men. "The Models are waiting" is a rather ordinary painting of three very ordinary women, partly disrobed and looking bored. "Portraits of Prof. Frolich" is a careful and honest portrayal of one of Denmark's artists, and "View of a Plain" is one of those small, quiet pictures which one overlooks at first, but whose value appears on study. It is just a stretch of flat country, over which the eye apparently travels for miles, varied only by a line of trees and the shadows of the floating clouds. The breadth, the atmosphere, the simplicity of the whole constitute its merit. As for the Prof. Frolich, whose portrait was just mentioned, his own contributions are not of a high order. There is Cain, shrinking from the eye of the Lord, and a couple of small pictures of legends of Satyrs that do not deeply impress one. A. A. Jendorff one imagines to be also a painter of the old school from his semicircular panel of "The Deluge," conventionally filled with writhing, nude figures, all of the same brownish complexion, and the offended Deity appearing in the clouds in a majestic blue mantle.

In the same roof there is a large painting by H. J. Braendekilde which breathes the spirit of modern thought. "Worn Out" it is called, and it represents a wide expanse of plowed land, a quiet sky, and a low line of farm houses in the distance. An old, old man has fallen helpless, unable to go any farther. The few things he was carrying have slipped from his hold; a young peasant girl, his daughter, presumably, kneels beside him and shouts for help.

It is bitterly tragic, the venerable figure whose life time of work has brought him only this, but it does not strike the disagreeable, inartistic note touched by two other painters. Rassmussen, in his "Shipwrecked Sailors" in a raft on a skilfully painted sea which is alive with sharks; and still more Zartman, with a "Job" most liberally bespotted with boils. Aucher, noted for his fishermen pictures, has a big "Fisherman Returning Home" and a group of heads called "Three Old Fellows." A great deal of space is taken up in one room unworthily by a portrait group of the Danish royal family. The king and queen occupy the sofa in the center; on their right hand stand the prince and princess of Wales (their daughter), with the late duke of Clarence; on their left side is the czar and the czarina of Russia, who was also a Danish princess. Those interested in royalty will further find the king and queen of Greece, the crown prince of Denmark and his wife, and a variety of little grand dukes and duchesses. Those merely interested in art will have had enough by this time.

Swedish painters and sculptors have a noteworthy exhibit at the Exposition. It includes a large number of groups and works in paintings, sculpture, architecture, and decorative art, numbering 200 subjects. Among those who contribute to the collection of sculpture are the following: Christian Erikson, Ida Matton, Paris; Alfred Mystrom, A. Soderman, Stockholm; W. Kennan, Paris; T. Lundberg, Stockholm; John Borjesson, Professor of Royal Academy, Stockholm. In the section of oil paintings are found subjects from: G. Albert, Paris; J. G. Andersen, O. Oxborelius, A. Beer, Stockholm; Wilhelm Behm, Gnesta; R. Berg, O. Bjorck, Eva Bondier, Mina Bredburg, Baron Cederstrom, P. Ekstron, Stockholm; his Royal Highness, Prince Eugene, of Sweden and Norway, who contributes three subjects: "The Forest," "Autumn Day," and "The Temple"; H. Feychting, Stockholm; A. Genberg, Stockholm; Baron Hermlin, Stockholm; Augustus Hagborg, Paris; Eugene Janssen, Stockholm; Prof. J. Kronberg, Stockholm; Carl Larsson, Gothenberg; A. Lindman, Stockholm; Carl Nordstom, Stockholm; G. Pauli, Stockholm; Count von Rosen, Professor Royal Academy, Stockholm; Ida von Schutzenheim, Baroness Emma Sparre, Stockholm; Carl Tradgardh, Antoinette Vallgren, Paris; Alfred Wahlberg, Professor Royal Academy, Paris; Charlotte Wahlstrom, Alfred Wallender, Stockholm; A. L. Zorn, Allan Osterlind, Paris. In the water color groups there are found subjects from: Anna Boberg, Stockholm; Anna Ericsson, Gothenberg; A. T. Gellerstedt, Professor Fine Arts Academy; Baron T. Hermelin, Stockholm; Carl Larsson, Gothenberg; Z. Tiren, Stockholm. In the division alloted to engravings, etchings, and prints are found contributions from: F. Boberg, architect, Stockholm; R. Haglund, Stockholm; A. H. Haig; Count G. von Rosen, and Andrew L. Zorn.

"A SONG OF SPRING."—AFTER THE PAINTING, BY IDA J. BURGESS.

In conclusion the author would say: A better representation from a greater number of different nations is seen than has ever been brought together at any previous exposition. The responses from foreign governments and the enthusiasm of foreign artists when the art exhibit was thrown open to them has far exceeded the most sanguine predictions of two years ago. Visitors, therefore, see not only an epochal exhibit of American art, but the choicest productions of the world's great masters from across the sea. Space is assigned to France, Germany, Austria, Holland, Great Britain, Belgium, Sweden, Norway, Denmark, Russia, Italy, Spain, Japan, Canada and Mexico. There is also a gallery devoted to modern European master-pieces owned in private collections in America. Lovers of the finesse in the French school may see masterpieces by acknowledged leaders. The famous Dutch school, the Russian, the less known but powerful Scandinavian, the impressionist, and many others are represented by a selection of the choicest productions from the leaders of each school. When it comes to a critical study of American art, the patriotic American discovers therein not only certain characteristics of each of the foreign schools, but a distinct individuality, just as the American character is composite and a reflex of its varied sources.

The international fine arts expositions of the past may be said to have begun with Paris in 1867. Then followed Vienna in 1873, Philadelphia in 1876, Paris in 1878, and special exhibitions of fine arts in Berlin and Munich some years later. Then came the Melbourne Exposition, preceding the last great international exposition in Paris in 1889. An idea of the scope of the present fine arts exposition may be gathered from the fact that the fine arts exhibit contains between 1,500 and 2,000 pieces in the American section alone. In round figures France contributes 800 pieces, Germany 900, Dutch artists 300, England 600, Austria 300, Denmark 250, Sweden 200, Italy 600, Norway 180 and Belgium 400. The largest space is given to the United States artists. Next comes France with 19,201 square feet, next Germany, Great Britain, Italy, Belgium and Austria in order, and so on ranging down to Mexico, which has 1,500 square feet. In securing a good representation of American art, advisory committees were appointed in the leading art centers of the United States and in European centers where American art colonies flourished. By an interchange of service these advisory committees became juries of selection. The work of these juries and of the national jury have been entirely satisfactory.

The east and west pavilions connect with the central pavilion by means of corridors, which are also used as galleries. The east pavilion contains the French government exhibit and also the French masterpieces owned by Americans. The west pavilion contains the Italian exhibit and the exhibits of several other foreign countries whose space is limited. The central pavilion has two floors for the exhibit of paintings. The northeast section, or one-fourth of the space for paintings, is devoted to the works of United States artists. The southeast section is given up to Great Britain and Canada. The southwest section contains the works of art sent by Holland, Spain, Russia and Japan. The northwest section contains all the German paintings. In general terms the oil paintings are all hung on the

STATUE OF THORWALDSEN, PAVILION OF DENMARK, MANUFACTURES BUILDING.

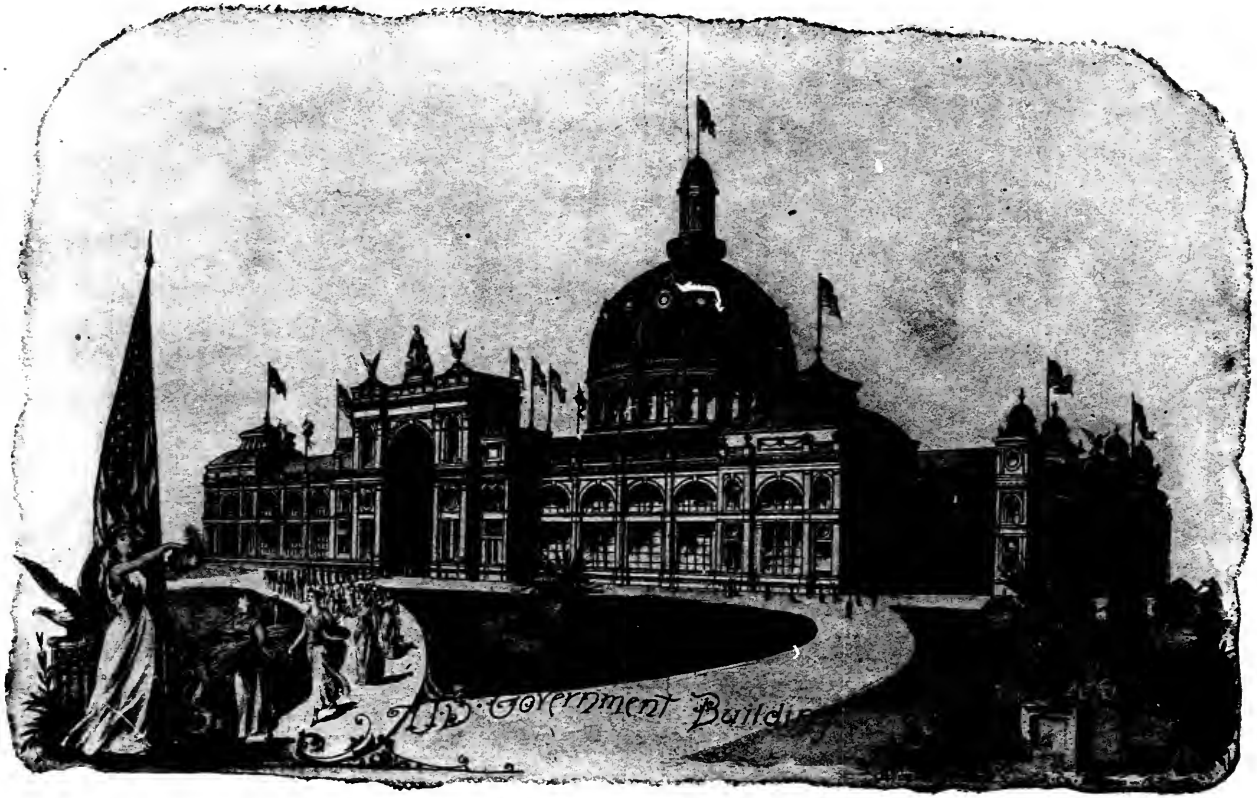
ground floor in the central pavilion, while water colors are on the second floor. There is an overflow exhibit of oil paintings upstairs in the American section.

Between these four quadrangles are four courts and the central rotunda. The north and south courts contain the groupings of statuary. The east and west courts contain the architectural exhibit. Here are seen structures and casts illustrating ancient, mediæval and modern architecture. Cases of antique and modern carvings, and architectural drawings are hung on the walls. In the north and south courts is the installation of statuary. There are figures and groups in marble, casts from original works by modern artists, models, monumental decorations, figures and groups in bronze and bas-reliefs in marble and bronze.

The central rotunda contains a heroic figure of Washington by Thomas Ball, On the sides of the rotunda are twelve spaces for figure groupings furnished by different foreign countries. There are also rotundas in each of the smaller pavilions, where statuary and architectural specimens are grouped. There are eighty galleries in all including the east and west pavilions. These range from 30 feet square to 36 by 120 feet for the exhibition of paintings. There are also 108 alcoves, fronting on the court of the central pavilion. Twenty-eight of these are on the first floor and eighty on the second floor, and much additional wall space is gained by their use. Engravings, etchings and black-and-whites are mainly upstairs with the water colors, and pastels are down stairs with the oils.

The lighting arrangements are as faultless as can be devised. All the pavilions, including rotundas, courts and galleries, are lighted from above. The modulation of natural light in the daytime is simple and effective. The system of artificial lighting at night is in itself a work of art. Myriads of incandescent lamps shed a mellow radiance over courts and galleries. The electric lamps are arranged in clusters above each court, and also in continuous rows around the galleries. The attractiveness of the art galleries at night is admitted as one of the features of the Exposition. Halsey E. Ives was born in Havana, N. Y., 45 years ago. In 1862 he began work as a draughtsman and in 1864 he was found serving the Union in the army in Tennessee. In 1866 he began the study of art, and in 1874 he entered the Polytechnic school in St. Louis. Subsequently he studied fine arts in France and England, and upon his return to the United States he was made a member of the faculty of Washington University as an instructor in the fine arts. He is an artist himself and his appointment is considered as one of the best, as he is thoroughly a leader and a teacher. He is also one of the most affable gentlemen connected with the Exposition.

CHIEF IVES.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CHAPTER XVII.

THE GOVERNMENT BUILDING.

Marvelous Collection of Exhibits made by "Uncle Sam"—Three Thousand Models from the Patent Office—Progress of American Invention Elaborately Presented—The Smithsonian Display Alone a Wonderful Educator—Bird and Beast Mounted Amid the Same Surroundings as in Life—Each Specimen so Labeled that no Observer can make a Mistake—A First-Class Postoffice in Operation—Dead Letter Curiosities—Tarantulas, Horned Toads, Human Skulls, Axes, Dolls, Molasses Candy, Stuffed Owls, Alligators, Ostrich Eggs, and Thousands of Other Things that never Reached their Destination—War Department Novelties—Great Guns and Little Ones—Cannons and Torpedoes—Historic Documents from the Department of Justice—Documents Connected with the Dred Scott Decision—Great Exhibit by the Agricultural Department—Horticulture, Pomology and Forestry—Special Alaskan Exhibit—Quaint, Curious and Interesting Objects of Ethnological Research—Peculiarities of Many Birds and Beasts.

OUR Uncle Sam's place—the Government Building—is always crowded; and the intelligent variety of its exhibit and its usefulness as an educator is best illustrated by the many thousands who visit it daily. There are some artists and critics and others who are or who pretend to be highly displeased at the architectural qualities of the Government Building, and some of the more fastidious among them have condemned it as unsightly and unworthy of the harmonious beauty of the Exposition. But not one of them has found fault with it from a utilitarian point of view. It is admirably adapted to the department exhibits. That is a great deal. It is situated directly north of the big Manufactures Building, and cost the government $400,000. Ex-Supervising Architect Windrim drew the original plans for the structure, and Supervising Architect Edbrooke finished it.

In the original World's Fair legislation a board of management for this exhibit was created, consisting of a representative from each of the eight executive departments, one from the Smithsonian Institution, and one from the United States Fish Commission. That board is as follows:

Edwin Willits, Department of Agriculture, chairman; Wm. E. Curtis, Department of State; Fred A. Stocks, Treasury Department; Maj. Clifton Comly, United States Army, War Department; Commodore R. W. Meade, Navy Department; A. D. Hazen, Postoffice Department; Horace A. Taylor, Department of the Interior; Elijah C. Foster, Department of Justice; G. Brown Goode, Smithsonian Institution and National Museum; Tarleton H. Bean, United States Fish Commis-

sion; F. T. Bickford, Secretary and Executive Officer. The superintendent of the exhibit is Capt. Aytoun, who takes pride in the fact that the Government building was actually complete and all the exhibits ready in advance of the opening of the Fair. His department was the first to receive and the first to instal an exhibit. The exhibits in the building occupy a floor space of more than 100,000 square feet, to which the various annexes and the battleship, where the naval display is made, add about as much more space.

In the center of the Government building stands a thirty-foot section of one of the giant trees from Mariposa Big Tree grove, near the Yosemite Valley. It is called the "John W. Noble." Four wide corridors connect the main entrances with the rotunda. Eight alcoves around the central space are filled with collections of Colonial relics made by the Board of Lady Managers. Perhaps a great majority of the visitors to the Government building enter it at the southern portal. When a sight-seer walks into the building at that door, which looks toward the Manufactures and Liberal Arts building, he sees upon his left the dual exhibit of the Postoffice and Treasury Departments—a full working postoffice in active operation, receiving and depositing mail, delivering letters, issuing and paying money-orders, registering letters, and transacting all the business that comes within the scope of an office of the first class. This model postoffice has been constructed with a glass front to enable visitors to watch all the processes. Near at hand is a complete model of a mail car, in ivory and gold decorations, and in the same section are models of all the curious old-time methods of carrying the mail—by sleds with dogs, runners, and men on horseback. The Dead Letter Office has made an exhibit of curious mail matter and wonderfully addressed envelopes in this section; and everybody who goes sight-seeing through the building stops to look at it, and it seems sometimes as if everybody who went through the building stopped here at precisely the same time. They stand around the case from three to ten deep and gaze, first in silent wonder, then with a gradually broadening grin of comprehension, which in not a few cases deepens into the sheepish, half-guilty look assumed by a person whose conscience has received a sudden and unexpected jolt.

JOHN W. NOBLE, BIG TREE FROM CALIFORNIA.

For this department wherein the unclaimed packages from the dead-letter office are exhibited is almost as bad as a visible conscience to many of the visitors to the Government building. A man may stand in front of it and merrily jest on

the folly of anyone sending snakes or chewing tobacco through the mails, and underneath all his blithesome manner may lie the consciousness that it was only last week that he himself sent molasses candy or cologne.

Never was there such a varied collection of odds and ends in so small a space before. It ranges from alligators to layer raisins, and includes everything on earth, in air, or sea. There are snakes and centipedes and tarantulas, and a skull or two thrown in to add to the gilded horror of the thing. There are pistols of every quaint and bygone pattern known to man, and daggers and knives sufficient for an army of assassins. There are axes and hatchets and sleigh bells jumbled in side by side with stuffed birds and rag babies. An owl perches serenely upon a human skull, while in another case an Indian scalp is jostled by a china doll. In one case is the evidence of a fruitless attempt to send a string of battered Chinese coins by Uncle Sam's carriers. Perhaps it was a case of filial devotion on the part of some almond-eyed washerman—who knows? In another case somebody's pounds of tobacco wait unclaimed side by side with somebody else's bronze medals, and all day long crowds gather and part, and their uneasy consciences ever bring them back for just one more fascinated stare at the heterogenous collection.

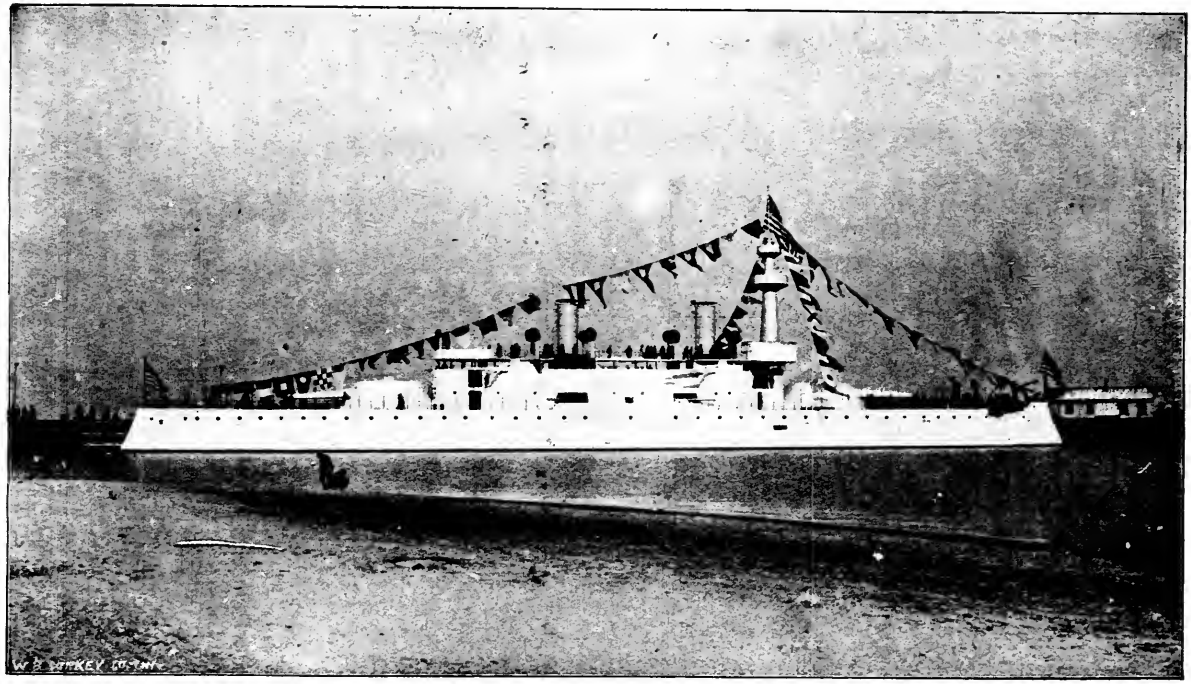
In the Treasury Department exhibit are collections and views illustrative of the work of the Coast and Geodetic Survey, of the Bureau of Engraving and Printing, and of the Philadelphia Mint, which shows a stamping press in operation and makes a display of its noted numismatic collection.

Across the broad aisle to the east is the elaborate exhibit made by the War Department. In its ordnance section are all kinds of cannon, from the fifty-two ton gun down to the smallest known howitzer, and a full line of gun-working machinery in operation. The quartermaster's section occupies considerable space in the war exhibit. Figures showing uniforms and methods for transportation and sustenance of troops in vogue in the army are full of interest to the student of military affairs. There is a full collection of the Civil War battle flags, and the Signal Service exhibits a vivid reproduction of Arctic scenery.

Two years have been consumed by the United States Engineering Corps in preparing for the exhibit of models of all the great American engineering works, including dams, jetties and levees. These models are in the War Department exhibit.

The east entrance to the building leads to the exhibits of the State Department and the Department of Justice. The former shows all the great original historic documents appertaining to the formation of the republic, portraits of distinguished American statesmen, including all the Presidents, and interesting originals of treaties. On the right hand the Department of Justice has displayed large oil portraits of the seven Chief Justices and of all the Attorney-Generals. Glass cases contain some of the great legal documents that have made the country's history. The documents in the Dred Scott decision are there.

Around at the north end of the building Uncle Jerry Rusk has shown what the Agricultural Department has done for cereals, for cotton, silk and tobacco culture, and for the promotion of a knowlerge of entomology, pomology, and forestry.



BATTLE SHIP "ILLINOIS."

The fish exhibit shows the method of taking fish, fish boats now in use and those of more primitive forms, and a collection of uncommon fish from the deep sea. A wonderful group of casts of fish made by a rare process forms a part of the exhibit.

The Interior Department exhibit includes displays from the Land Office, Patent Office, and Geological Survey. The Land Office has furnished in its special Alaskan exhibit one of the greatest ethnological collections on the grounds. Original models of all the important American inventions are shown in the Patent Office section, which adjoins the geological collection.

The great Navy Department exhibit is made in the United States coast-line battleship, and other annexes provide room for the model army hospital, the Indian school, a weather bureau in full operation, a life-saving station, manned and equipped, a lighthouse 110 feet high, in which burns a 16,000 candle power lamp, and a naval observatory. It is gratifying to the superintendent that the present government exhibit is more extensive than ever before attempted at any of the expositions. At the Centennial the floor space occupied was not more than half of that taken up by the present exhibits. For comprehensiveness and perfection the Smithsonian's display comes pretty nearly beating anything at the Fair. There is a stuffed raccoon eating persimmons, and there is a fine specimen of the earliest form of cornstalk fiddle. There is a special exhibit from Alaska, and there is a fine walrus brought from Seal island especially for the Fair by Capt. Healey of the revenue marine. It was the finest and biggest walrus the captain could find. There are scores and scores of other animals as carefully selected as these.

POLAR BEAR STATUARY ON BRIDGES.

Birds too—lots of them—arranged on the same plans as the mammals. There is an especially fine display of humming birds—the best in the world. Some fine birds of paradise. The birds are shown at home, just like the beasts. There is a hornbill family. Mrs. Hornbill sits on her nest in a hollow tree and the hole she went in by has been walled up with clay by the crafty Mr. Hornbill, just a little hole left for the old lady to feed through. The Smithsonian does not know whether Mr. Hornbill does this to keep his wife from gadding about too much or whether he does it to keep enemies from stealing her eggs. But they do know that he does it, and they show him that way.

Then there is a fine display of that provident bird the California woodpecker. In the summer, when other birds are loafing about trilling merry roundelays, this wise bird puts in his time drilling holes in dead trees. In the fall, when the other birds are still trilling and having a good time, the woodpecker gathers acorns, drives them into his supply of holes, and plugs them up. And in the winter, when the other birds are shivering and wishing they had more tailfeathers, this foxy woodpecker is just rolling in luxury and getting fat off his stores.

Then there is an extermination series shown. This is a classified array of birds and beasts of species which are fast being exterminated. There is a caseful of graceful wild pigeons prettily grouped. Not so very many years ago, says Mr. Earll, men used to go out along the shores of Lake Michigan within the present limits of Chicago and kill a bushel of these pigeons before breakfast. Now the Smithsonian had a hard and long hunt to get ten of the pretty birds for the World's Fair. Then there are the red and green Carolina paroquets. There were lots of them in Illinois once, and only a few years ago they were a nuisance in Indian territory. Now the institution has to send hunters clear down into the wilderness of the everglades to get Carolina paroquets. A group of these birds is shown feeding in the snow. People to whom a parrot is a parrot and always a tropical bird will rail at this, but it is true to nature. The paroquet's habitat was once almost as far north as the latitude of Chicago.

And there is a protective mimicry series of birds and beasts which change color and appearance to be in accordance with their surroundings. The ptarmigan of the north is a fair sample—white as the snow about him in winter, brown in summer. Here is another novelty in this department—an exhibit of useful animal products. The object is to illustrate the uses of the different parts of animals and to show that exceedingly few parts fail to be used by man. It is all done in that relentlessly classified way that allows no one to get muddled. First the appendage on the skins of animals. There is hair of all sorts for brushes, wool, feathers for decorative purpose and feather pictures, even feather flys for fish hooks—a long array of most interesting specimens of articles made from hair, feathers, and wool. The number will surprise you when you look. But that is not all. Fish scale jewelry and all sorts of things made of tortoise shell come within this class. Then the skins of animals with the outer appendages—furs in a bewildering variety. Then skins of animals without appendages—leather. All imaginable sorts of leather, 250 distinct kinds of it, from a pair of boots made from human skin to pouches made of snake hide. There is the back of an Indian chief's neck neatly tanned and some bits of well cured skin from a young girl's breast.

Claws next, and horns and hoof jewelry, and trophies of claws, combs, and all manner of trinkets from horns; gelatine and glue, and fertilizers from horns and hoofs. Teeth—Here comes the ivories, an exhibition of themselves. There is the largest elephant tusk in America. It is nearly 8 feet long and weighs 137 pounds. Elephant ivory, narwhal ivory, alligator ivory. Bones—Agricultural implements, weapons, household utensils, fashioned by folks who are savage, poker chips fashioned by folks who are not savage. Flesh—An infinite variety of meats,

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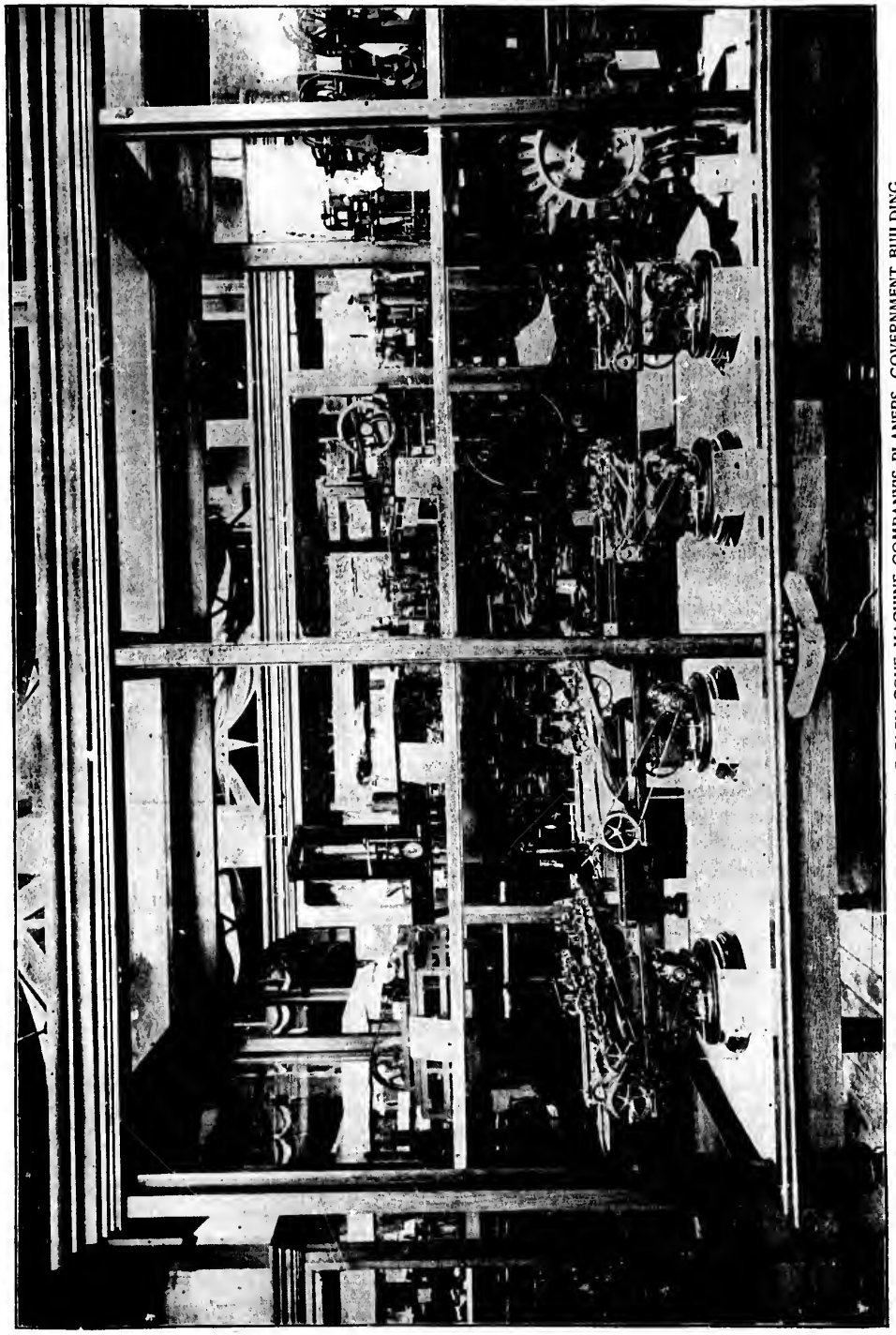


PATENT EXHIBIT SHOWING WORKING MODELS OF GLEN COVE MACHINE COMPANY'S PLANERS, GOVERNMENT BUILDING.

from Armour's extract of beef to dried shark's flesh. Viscera—Eskimo waterproof suits made from the intestines of the walrus, catgut made from the interior economy of sheep. Animal Fluids—Dried blood fertilizers, galls, and pepsins, artists' pigments.

Now for ethnology. The Smithsonian illustrates the different linguistic stocks, forty in number, of the American Indian. Its agents have within the last two years taken photographs and sketches of the chiefs of the characteristic tribes of each of these stocks. They have bought from each chief his best war toggery. They have, when possible, taken plaster casts from life. They have reproduced these chiefs exact in stature, features, complexion, dress. It is a work of the utmost value, the last true records of a dying race of men. There are groups, too, illustrating primitive Indian industries.

There is an exhibition of representative fishes, insects, and, invertebrates, an exhibit of physical geology, showing cave formations in replica, volcanic formations, and the glacial period. A small but striking array of gems and ornamental stones of America is shown.

To get back to ethnology again there is a display showing the origin and growth of music—300 instruments of all ages of the world, another department illustrating the primitive religions, and one showing the development of the potter's art among the Japanese

When you visit the northwest corner of the Government building you will think you are looking at the interior of Machinery Hall through the big end of a spy glass. On every hand are multitudes of glistening machines that look as if they had been built for liliputians.

These are the models sent from the Patent Office. You have heard of the Patent Office; perhaps you have read a Patent Office report.

The exhibit is interesting, very. Chief Special Agent Ewing, who is at the head of the Interior Department's show, says he thinks the Patent Office Bureau, is the best of all.

What an array of queer little machines! Some of them are built rudely of wood and in ill proportions. These are few. Some of them are of burnished steel and brass, bright, in perfect proportions. Some of them are duplications in minature of appliances that everybody in the world knows about; some of them are contrivances nobody outside the Patent Office ever heard of. Every one of them is the embodiment of an inspiration; every one shows something that was new and original; every one of them has helped the world along a step.

Remember that your beneficent Uncle Samuel, whose display this is, never goes to a world's fair just to amuse people. He always aims at instruction when he exhibits. This display of the Patent Office is aimed to be instructive. The aim has been carried out right well by three special agents, to whom the work was committed. The plan of the exhibit was to show the development of the arts and sciences in America, and the influence of the Patent Office in promoting that development. To this end the exhibit has been rigidly classified, and there is not one of

the 2,500 models in the long array of glass cases that was not placed there with a definite purpose.

And the 2,500 models include about everything, from a rude Gallic reaping machine, pushed by a bullock—date A. D. 70—to a life-sized Hotchkiss revolving cannon—date A. D. 1893. The Hotchkiss gun stands beside the desk of Principal Examiner A. P. Greeley, who is in charge of the exhibit. He can whirl around and set the thing going whenever he pleases.

This exhibit illustrates admirably the progress of America and of the world in the chief arts and industries. Uncle Sam might have picked from his 225,000 specimen inventions a lot of wonderful contrivances that would have shown how far the Yankee inventive genius can go after it gets into crankiness. That would have made a comical show, but Uncle Sam kept those at home. He kept three of his best examiners busy for nearly two years picking out his best patent models, and he spent $15,000 cleaning and fitting up these models.

STATUARY ON BRIDGES—BUFFALO.

Result: Object lessons in progress to be had nowhere else on earth—not even at the United States Patent Office. There is the matter of printing presses. First, a model, accurately constructed, of the original printing press that Guttenberg built. Then, models of several of the later types of hand presses, then cylinder presses, and on into the ramifications of stop cylinders, two-revolution presses, and color presses. Finally, the Web perfecting press appears, a fine series of models of every step in its development. Last and most modern, a full working model, exquisitely finished, of Hoe's latest press, that prints 70,000 newspapers an hour.

Go into other arts, for instance into the manufacture of textile fabrics, carding and combing machines, spinning contrivances, looms, taken up at the very dawn of civlization and brought right down to this day.

Incidental to this department is a full object history of the sewing machine. There is the original model of the very first Howe machine of 1846. It seems to consist largely of an abnormal fly wheel and a steel plate set with long teeth, upon which the cloth was hung. Then, in succeeding machines, this toothed plate disappears, and there are various devices for a continuous feed introduced. Every

year shows a big or little improvement. There is a procession of sewing machines from the days of your grandmother down to the time when you can get one as a gift for subscribing to a story paper.

The very latest of them all is a queer-looking concern designed for the difficult work of sewing woven lining upon looped fabric. That machine is fed by a plate full of long teeth, almost like the original Howe machine. There are sewing machines exclusively for buttonholes, others for eyelets, machines that sew leather two seams at a trip, machines that embroider, sew zigzag, and fasten on four-holed buttons. There is one little one that you could put in your hat. It was made by the Shields Company in 1890. It wlll do 5,000 stitches a minute.

The growth of that other American product, the typewriter, is shown. There is the first sign of a typewriter, a huge and curious machine invented by William Burt, in 1829. It was a practical machine and worked well, but it failed because the people were not quite ready for typewriters in 1829. Burt sold the rights to his invention in the New England States for $75. There is on record a letter from the man who bought the rights, making a tremendous kick and demanding his money back because there was no sale for the machine. Burt's original model was burned in 1836. The present one was carefully built from specifications in the patents signed by President Andrew Jackson.

There is the Thurber machine of 1836, and another one of a little later date that looks like a hemisphere covered with knobs. The first Remington machine, made in 1874, is as big as a full-grown hand organ, and its keys are like poker chips.

"Farmers," says Examiner Greeley, "sometimes look upon the patent office as an enemy. We shall aim to show them how much the patent office has advanced the science of agriculture." So there is an exceptionally fine display of inventions in agricultural implements. In plows there is the original crooked stick plow, and the first plow with a cast-iron mould board. This was invented by Neobald in 1797. It looks clumsy.

A tremendous row followed its first introduction in the market. Farmers said it would poisen the soil and kill all their crops, stocks, and families. But the cast-iron plow kept improving. You can see every step of it in these models.

Perhaps the best example of the fin de siecle plow is a handsome bronze silver model, on which Charles Anderson was granted letters patent, June 7, 1892. It is a sulky gang plow with so many levers and springs that one thinks nobody but a civil engineer could manage it. Seeders, planters, harrows, and reapers, are in endless variety.

The reaper, too, starts right from the first. There is the rude ox-cart, with the sickle attachment, that was used in Gaul in the first century. There is also the first modern reaper, an English invention of 1799; another of 1825 that looks like an over-grown lawn mower. The McCormick machine of 1831 was the first real reaper, followed by table rake machines and self-binders.

Steam engines include the whirling steam globe of Hero, contrived ages ago, and the crude attempts of James Watt. Hero's machine is shown in working model, and of Watt's inventions there are fac-simile miniatures. A splendid showing of

detail improvements in engine building are shown, as well as the gradual perfection of valves and eccentrics. There are models of the earlier locomotive engines that are historic, and an array of grotesque monsters that never did get on the rails. The climax is a working model of the cylinders and drivers of a mighty compound locomotive, patented May 29, 1892, by Samuel Vauclain; air and gas engines, too, including the famous Ericcson models; pumps, boilers, propellers, wood working machinery. The model of the noted Blanchard gun-stock lathe, the wonder of its day, is in this class.

And electrical inventions! There is the first attempt at a magnetic motor invented by Joseph Henry in 1835, the original model of Faraday's induction coil, which was the basis of all later electrical progress, and the Davenport motor of 1837. This machine was practical, worked well, but was a failure because no one had discovered how to produce an electric current by dynamos. It is only in the last few years that electricians have commenced to understand the full value of Davenport's invention. Page's motor, which drove a locomotive from Washington to Baltimore in 1854, is there too. After that comes the work of Morse, Edison, Thompson, and Houston—it is a maze of electric ingenuity. Writing telegraphs and multiplex telegraphs, telephones of a sort you never saw before, electric lamps, big and little, motors, dynamos, and armatures. The electrical show will puzzle anybody but an expert.

So much for the arts of peace. There is a corner for bloodthirsty ingenuity, though. One great case is full of portable fire weapons. At one end is a wooden tube wrapped with bamboo. It looks like a Roman candle. That is the first gun. At the other end is a businesslike little weapon with a slender blue barrel and a collection of mysterious steel knobs about the breech; the Kray-Jorgensen magazine rifle, patented Feb. 21, 1893. Its steel pointed bullet, three-tenths of an inch in diameter, will find a man and slay him further away than you can see him. The bullets can be fired so fast the barrel of the piece gets hot. The last gun is an interesting study in progressive killing.

Early in the exhibit there is a quaint hand culverin, the earliest form of a pistol. The man who fired it had to touch it off with a slow match. Next there is a match lock of the time of Admiral Columbus, of whom you may have heard, and next is a wheel lock of the sixteenth century. This machine has a long and exceedingly big barrel, quaintly lacquered. Upon its breech is a small steel wheel set upon a spiral spring. The musketeer had to wind up this wheel with a big key. When he touched the trigger, whiz went the wheel, grinding a brilliant shower of sparks out of a flint set to bear upon its circumference.

This particular weapon was tried by the Germans in a little argument with the French in 1855. It is said to have impressed the Gallic musketeers with astonishment and disgust, just like the Teutonic, zundnadelgewehr, the famed needle gun, acted upon their descendants some centuries later. You can see a fine specimen of the zundnadelgewehr a little further along the case after you have passed the stages of the later flint locks and the old muzzle loaders. In the breech loaders, the magazine guns, and the hammerless fowling pieces, you have the handiwork

here of Sharp, and Berdan, and Maynard. Here is the famous and deadly Henry rifle of 1860, the progenitor of the Winchester, and all the magazine guns.

Pistols next—some queer ones, too. There is the first Colt model that was offered for a patent. Across the aisle are cannon and great guns, Chinese wooden cannon, and the big, graceful Dahlgren gun, that amazed the world in the '60's. Freaks in the shape of cannon include Lyman's accelerating cannon of 1857, which has three little brass barrels that run into one, one by one. The model of the first Gatling is here too, a clumsy, squatty machine, and so on—why, one may stay in the Government building a week and then not see all it contains.

BREECH OF A RAPID FIRING GUN.

PART VIII.

OTHER MAIN FEATURES.

CHAPTER I.

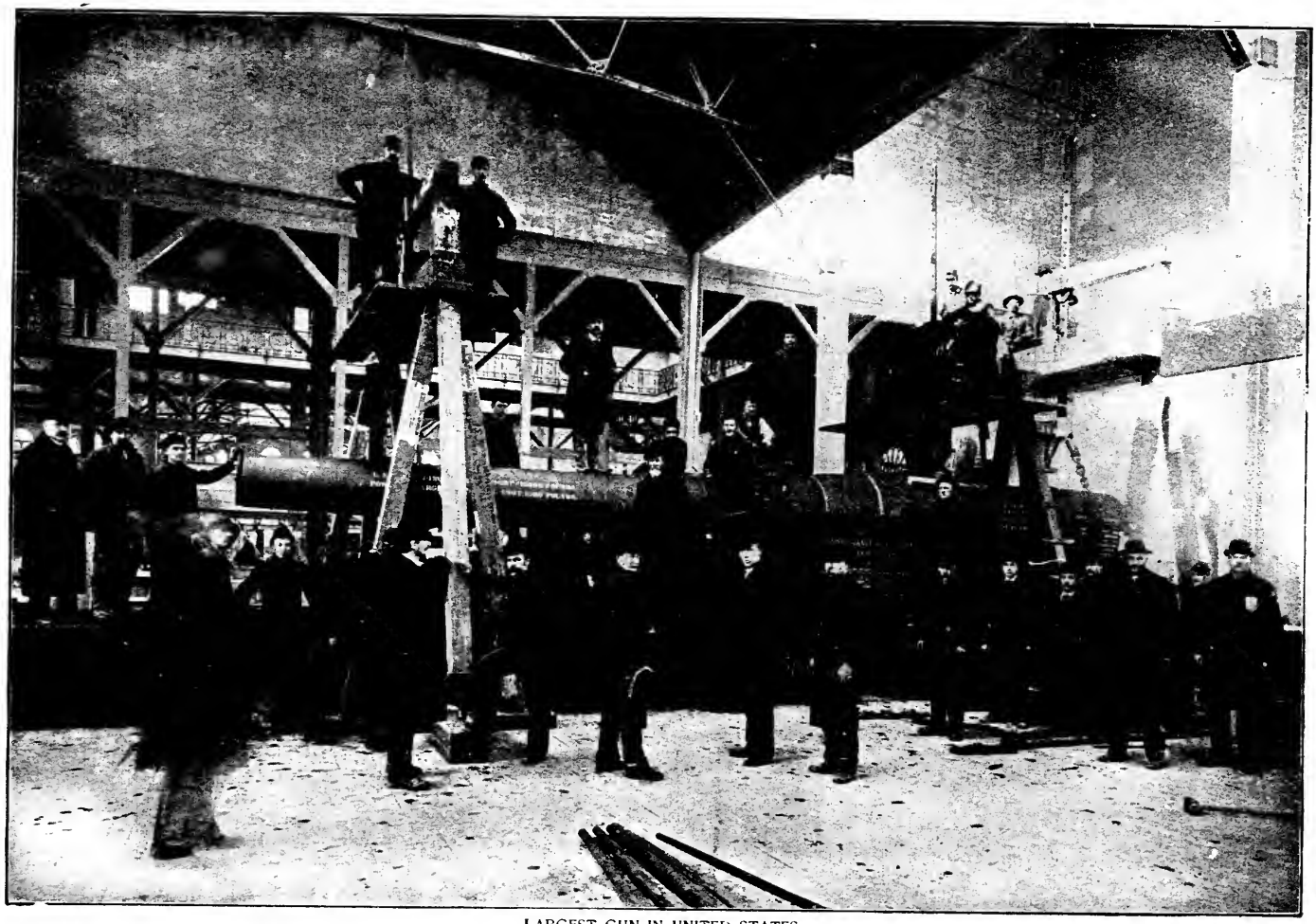
THE SHRINE OF THE WHITE CITY.

Reproduction of the Convent Where Columbus and His Son Once Took Refuge—Court, Cloister and Corridor—The First Cross Erected in America—Coins Made From the First Gold Found in America—Letters Patent and Autographs From Ferdinand and Isabella—Collection of Paintings on Wood and Rare Mosaics Loaned by the Vatican—Two Bells With a History—One of the Cannons of the Santa Maria—More than a Thousand Paintings in All—Model of the Norse Ship—Books Written by Marco Polo and Americus Vespucci—The Sepulcher Room—Many Pictures and Relics of the Last Days of Columbus—La Rabida, the Mecca of Many Pilgrims—The Remains of the Great Navigator—The Battle Ship Illinois—A Superb Counterfeit Man-of-War—A Vessel That Has Never Tossed on Billows—The Lighthouse and Life-Saving Station—Hospital Service.

THE convent of La Rabida stands on a little promontory jutting into Lake Michigan, at the southern end of the Park. It is an exact reproduction of the monastry of that name, near Palos, Spain, where Columbus and his son Diego took refuge over four hundred years ago. As this building seemed to be more closely associated with the career of Columbus than any other known, the directors of the Exposition thought a fac-simile of that structure would be the most fitting shelter for all the relics of the great navigator that had been secured for exhibition at the Fair. It is a low, rambling building with red tile roof and resembles very much many of the adobe churches to be seen in Old Mexico and in our own States and Territories. The court-yard, cloister and corridors are singularly beautiful with their arches, crumbling pillars, grated windows and quaint architecture throughout.

The chapel is a long, low room, roughly plastered, with great black beams that stand out conspicuously in contrast with the universal whiteness. The altar, which is in charge of the Franciscan monks, has been fitted up by them to reproduce the altar of the original monastery. Two of the most conspicuous objects in it are a battered wooden cross about ten feet high, that was erected by Columbus on his arrival in America, and a little worm-eaten door taken from the convent.

In old cases about the room are valuable documents dating back to the close of the fifteen century. The curious cipher signature of Columbus, the royal letters



LARGEST GUN IN UNITED STATES.

patent from Ferdinand and Isabella to the great discoverer when he sailed his off first voyage and making him admiral of the fleet, an autograph letter from Queen Isabella returning a book which Columbus had loaned her and urging him not to delay his voyage, and many letters written to his son Diego in 1504, are especially interesting. In another case are some old coins made from the first gold found in America. They are larger than a silver dollar of to-day and are covered with quaint designs very roughly made. Portraits of Columbus, together with a large collection of old paintings on wood, and rare mosaics, loaned from the Vatican, are hung about the wall. Several of the oil paintings representing incidents in the career of the navigator are also in this sanctuary, one of the most famous being by J. C. Amasoffsky, professor of fine arts, St. Petersburg, depicting Columbus as a young man ship wrecked and clinging to a spar in the water. Then there are two bells with a history. One was given to Columbus by King Ferdinand, and was hung in the church in Isabella and was the first church bell in the western hemisphere. It is badly broken and weighs only about ten pounds, but it bears on one side Ferdinand's initial, and when struck gives out a faint sound in a minor key. The other bell is almost twice as large, and was given by Pope Alexander II. to the church in Carthagena, in Colombo, in 1516, and was the first bell heard on the main land. On either side of the altar are two anchors used by Columbus. They are badly rusteaten. One of them was lost from the flagship Santa Maria at La Natividad, and Washington Irving, in his life of Columbus, mentions in a foot note that he had heard that it had been found. Research was made by Mr. Curtis, and the anchor was found in possession of the Indians who held it with reverential care. It is 9 feet 6 inches high and has lost its two flukes through the action of the water in which it lay nearly three hundred years. One of the four cannons which were on the Santa Maria are also shown. It is a queer little thing,

CONVENT OF LA RABIDA.

LARGEST GUN IN UNITED STATES.

only about four feet long roughly made of iron and very rusty. If it were melted down and made into a solid shot there would not be enough of it to fill the breech of one of the smallest siege guns of to-day.

In the main part of the monastery the several rooms are turned into art galleries. Here are nearly a thousand pictures, including portraits in many styles of Ferdinand and Isabella, Lief Erickson, Marco Polo, and an oil painting of Americus Vespucci, which is said to be painted from life. One of these rooms is known as the Columbus room. Here are the seventy-four pictures of the discoverer, by as many different artists, which have created so much comment, as no two bear the slightest resemblance, and by a rather singular coincidence there are seventy-four different statues of him erected in different parks in the world and a model of each placed under each picture. The curio-room contains a model of the Norse ship said to have been used by Lief Erickson and a chart of his course; the old mill in the park at Newport, the origin of which no one knows, truly, and the inscriptions on the Dighton rock, near Taunton, Mass., which are said to have been made by Norsemen in the tenth century.

LIGHT HOUSE.

In another room are a number of relics from Columbus' home at Funchal, Madeira, which was built for him by his father-in-law, Bartholomew Perestrello. These include the double doors of the house, the shutters from a window, a small scantling, a piece of barbosana wood and a cane made from one of the joists which was sent to the late James G. Blaine and which has been loaned. In a glass case is a copy of Marco Polo's book, "De Regionibus Orientalibus," which Columbus carried on his first voyage to the west. Another book of interest is one written by Americus Vespucci in the monastery of Saint Die, France, the book that gave America its name. It was written while he was under the patronage of King Rene II., of Lorraine. In this are also shown the breviary carried by Columbus on his voyages of discovery.

In what is known as the "sepulcher room" are many pictures and articles

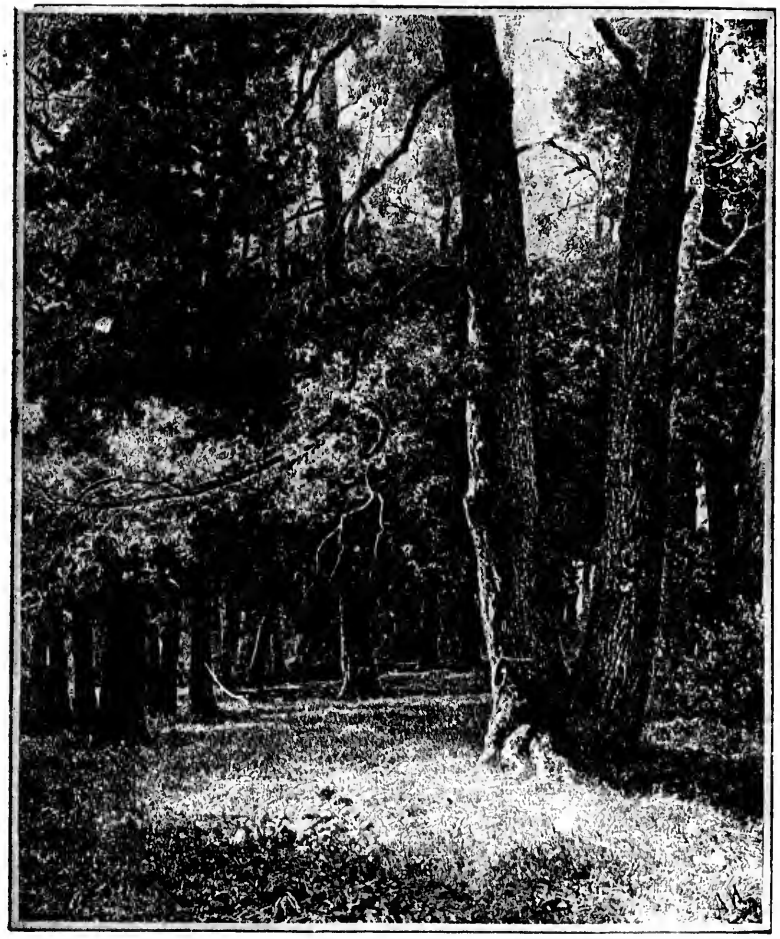
relating to the last days and death of Columbus. Three paintings by Ortego, Baron Wappers and Robert Fleury are on the same subject, "The Death of Columbus." There are also views of the City of Seville and the house in which Columbus died, which is still standing at Valladolid, Spain.

At one end of the sepulcher room is a little inclosure within which are placed photographs of the Cathedral of Santo Domingo, cathedral at Havana, showing the places where the bones of Columbus are said to be deposited. The fac-simile of the box in which the remains of Columbus were found is also shown, together with a fac-simile of the casket in which his dust now rests.

A replica of the doors that guard the cell in which are held the alleged remains of Columbus at Santo Domingo, a piece of altar rail, and the fac-simile of the urn inclosing the casket of Columbus, complete the list of relics connected with his burial.

This monastery is called the "shrine of the White City" and here many visitors go on a pilgrimage before viewing the other features of the Fair. There are many hundreds of objects that cannot be mentioned, as it would take a small volume to briefly enumerate all that may be seen at La Rabida. The author calls to mind no more delightful place, or one that created a more lasting and profound impression.

Not far from the English building is the battleship Illinois. It is a counterfeit man-of-war, but it looks for all the world like one of the great white liners. It appears as if made of iron, but it is only brick. It might seem as if it had tossed on Sicilian and Indian seas, but it has never sailed an inch. It has real guns, but the concussion of the discharge of any one of them would knock the vessel into a heap. It is one of the most magnificent and interesting object lessons of the Fair, nevertheless, and has been visited by four million of people. It is erected on piling by the Navy Department. The structure is, to all outward appearances, a full-sized model of one of the new coast-line battleships. It is surrounded by water and appears as if moored to a wharf. It has all the fittings that belong to the actual ship, such as guns, turrets, torpedo tubes, torpedo nets and booms, with boats, anchors, chains, cables, davits, awnings and deck apparatus, together with all the appliances for working the same. Officers, seamen, mechanics and marines are detailed by the Navy Department during the Fair, and the discipline and mode of life on naval vessels are completely shown, although possibly the detail of men is not quite so great as the complement of the actual ship. The dimensions of the boat are those of the actual battleship: length, 384 feet; width amidships, 69 feet 3 inches, and from the water-line to the top of the main deck, 12 feet. Centrally placed on the main deck is a superstructure 8 feet high, with a hammock birthing on the same 7 feet high. Above these are the bridge, chart-house and the boats. At the forward end of the superstructure is a cone-shaped tower called the "military mast," near the top of which are placed two circular "tops" as receptacles for sharpshooters. Rapid-firing guns are also mounted in each of these tops. The height from the water line to the summit of this military mast is 76 feet, and above is placed a flagship for signaling. The battery comprises four 13-inch breech-loading rifle cannon



PEN AND INK SKETCH—LANDSCAPE. BY THE PRINCESS IMIRETINSKY, RUSSIA.

four 6-inch breech-loading rifle-cannon, eight 8-inch breech-loading rifle-cannon, six 1-pound rapid-firing guns, twenty 6-pound rapid-firing guns, two Gatling guns and six torpedo tubes. All these are placed and mounted as in a genuine battleship. On the starboard side of the ship is shown the torpedo protection net, stretching the entire length of the vessel. Steam launches and cutters ride at the booms and all the outward appearances of a real ship of war are imitated. Frank W. Grogan was the designer and the cost was about $100,000.

Near by the United States Government exhibits a lighthouse and service, a naval observatory, a life-saving station and apparatus, and other appurtenances that are of benefit to young and old. The lighthouse is an exact reproduction of an American government lighthouse, with powerful search lights and all the belongings of such an exhibit. In the life-saving station the launching and handling of surf-boats are shown, with all sorts of wrecking appliances. This station will probably remain as a permanent one. The military hospital shows the latest approved methods of caring for the sick and wounded boys in the employ of Uncle Sam on land or water. This hospital is on the large parade ground in front of the Government building, where exhibition drills are given daily by the regulars and by visiting militia. The naval observatory attracts thousands daily.

BUILDING OF THE KRUPP GUN EXHIBIT.

CHAPTER II.

THE WHITE HORSE INN AND KRUPP'S GUNS.

Reproduction of a Famous English Hostelry—Coffee and Cakes a la Francaise—Great Guns as Peacemakers—A Gun Weighing 121 Tons That Will Send a Shell Fifteen Miles—Opinions of Major-General Schofield—Shoe and Leather Building—Merchant Tailor's Building—Choral Hall—The Terminal Station—Intramural Railroad—Service Building—Bureau of Admissions—Puck Building—White Star Line Pavilion—Windmills, Hospitals, Restaurants and New England Clam Bakes.

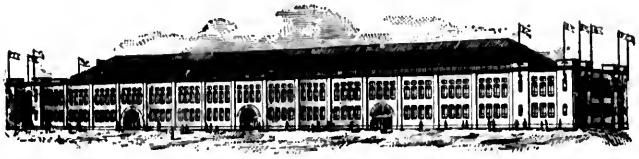
WHITE HORSE INN stands in the south end of Jackson Park, close to Agricultural Hall. This is an exact reproduction of the English hostelry made famous by Dickens in the "Pickwick Papers." Over the main entrance is the old sign of the original house—a life-size figure of a white horse. A wide hall leads into a square court around which, at the second story, runs a rustic balcony. On the left is a bar, on the right the restaurant and directly back is the kitchen. In the court are rustic tables, chairs and railings covered with trailing ivy. Here genuine English maids serve genuine substantials and drinkables supposed to be peculiarly British. The interior is finished in the quaint old English decorations, the woodwork being stained a very dark color in imitation of oak. In both bar and restaurant are large brick fireplaces, adorned by portraits of Dickens, Pickwick, Sam Weller and other characters taken from the work.

Aside from the figures over the mantlepieces, there is but little decoration. The second floor is occupied by the World's Fair Auxiliary Pickwick Club and is cut up into small rooms for private parties, and tables are also found around in the balcony, which, with the inner court, extends to the top of the building and are used as outdoor refectories.

The inn is the terminal point of a stage line from the city to the Exposition. The coaches, of English pattern, drawn by four-horse teams, land their passengers along the boulevards and through Washington Park to the grounds, where English patrons and others find a regular "chop house."

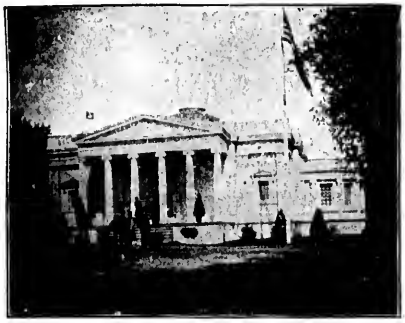
Near the White Horse Inn is a French bakery, where all kinds of French bread and cakes are made in great ovens, bigger than any in France, in the presence of the patron. These cakes and bread, and coffee at five cents per cup, are served by French maids.

One of the most attractive and impressive exhibits at the south end is that of the Krupps, who show, among many others, the largest gun in the world. The Krupp pavilion is east of the south pond, and consists of a large iron hall 196 feet in length, 82 feet in width and 42 feet in height, and was constructed and erected by the Gutehoffnungshuette of Oberhausen. On the land side there are two small towers on the front extensions, two large vestibule entrances and a high square tower in the center. The panels on the front are decorated with coat-of-arms of Westphalia and Rhineland and on the cornice are shields bearing the coats-of-arms of the different states in Germany.



SHOE AND LEATHER BUILDING.

Sixteen monster guns line the west side of the interior, facing the lake, and from the center of the line protrudes the gigantic barrel of the thunderer, 17 feet in diameter. The barrel is a jacketed, built-up tube. It has Krupp's rounded-wedge breech closure. Its total length is 46 feet and it has 120 grooves in rifling. The barrel, which has the immense weight of 121 tons, including the breech-closure, is supported by a front pivot carriage with a weight of projectile of 2,205 pounds. This gun was made in 1886 and has since been fired with sixteen rounds with full charges. A steel-armor shell with the above-mentioned initial velocity can perforate, when striking at right angles, a wrought-iron plate 3¼ feet in thickness at a range of two-thirds of a mile. It can also send a ball or an explosive shell 15 miles. There are five quick-firing guns, from 3 to 5 feet in caliber. The five-foot gun has a speed of over eight shots a minute. The four-foot gun has a speed for firing thirteen shots aimed fire a minute and the three-foot gun of over nineteen shots. There are also two small field guns, one with a barrel 680 pounds in weight, besides a great variety of smaller guns and other implements of war. It costs $1,250 to discharge the big gun. Gishert Gillhausen, the engineer who represents Krupp here, suggests that even though the cost was large the directors of the Exposition might save money after the show closed by firing the gun, as the concussion would undoubtedly knock down all the great buildings in Jackson Park and thus save a lot of labor in their removal. The big Krupp gun exhibit cost nearly $1,000,000.



MERCHANT TAILORS' BUILDING.

According to the census of 1893, the total number of persons employed at the Krupp works were 25,301; of these 16,956 were at the cast steel works at Essen.

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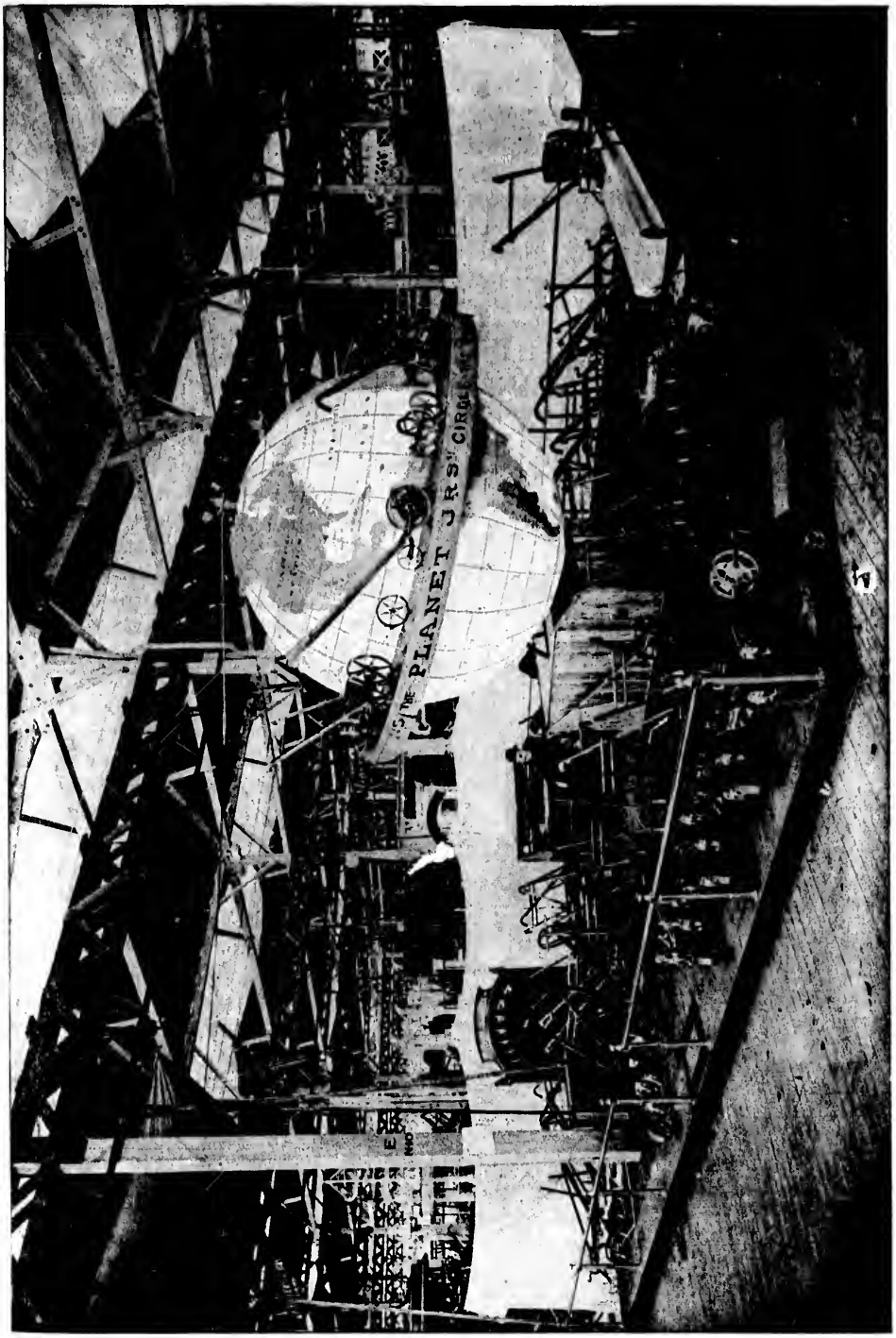


S. L. ALLEN & CO.—IMPLEMENT ANNEX TO MACHINERY HALL.

The cast steel works at Essen consists of more than 100 departments. Some of them, for example the hydraulic presses and armor plate mill and many other works, were built recently. At the cast steel works at Essen are about 1,500 furnaces, twenty-two trains of rolls, 111 steam hammers, and four hydraulic presses of enormous power, and about 3,000 machine tools. The total length of driving-shafts amounts to five and one-half miles; the total length of driving belts to thirty miles.

There is a branch steel work at Annen. The iron ore is blasted at four iron works situated along the shore of the Rhine, and 547 ore mines in Germany, as well as several mines at Bilbao in the north of Spain, furnish ore for these works. The quantity of coal used in the works is 4,200 tons a day, and the coal mines belonging to the firm supply the works with the greater part of this quantity, the output of the firm's own collieries average 3,300 tons per working day. The analyses, as well as a great number of assays, are made in test houses and in chemical laboratories, while the war material is tested on the large practice grounds at Meppen. One day in June Maj. Gen. John M. Scofield, commanding the armies of the United States, looked into the yawning mouths of what he calls "the greatest peacemakers in the world." These peacemakers are the huge guns which are housed in the pavilion of Herr Krupp. "The cannon of Herr Krupp," says Gen. Schofield, "makes a fit addition to an exhibition of the arts of peace. People who look at them can realize, to some degree at least, the horrors of war, and they teach a lesson more forcible than almost any other advocate of the universal brotherhood of men. The people of the United States are a peace-loving people, and as such they should learn that the only way to preserve peace is to prepare for war. If other people see that we are ready and able to protect ourselves and that they cannot attack us without danger of severe consequences they will be apt to let us alone."

OLD WINDMILL—HOLLAND EXHIBIT.

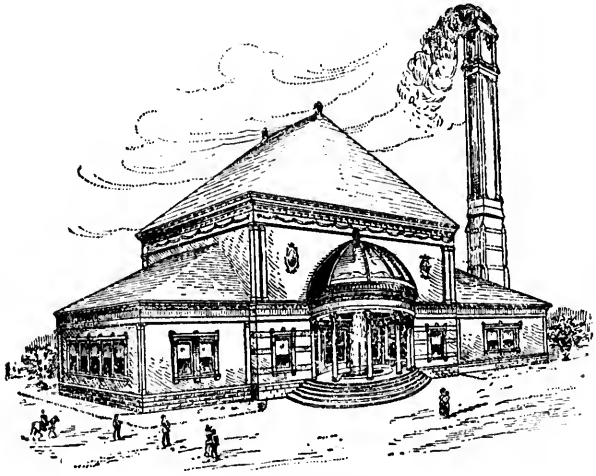
"But the government has none of the Krupp guns in use nor does it need any. Our own manufacturers can supply us. At the armory in Troy, N. Y., the machinery is now being built for a 16-inch gun which will be practically the same as the largest of the Krupp kind. Possibly next year, and certainly the year after, a type of these immense weapons will be built and tested. For one thing, no nation needs any of these enormous cannon. They are useful only where there is room for but few guns. The experience of the English and Italian navies has already shown that they are too large for service on board ship. The difficulty is to float such an immense mass of metal and at the same time to carry sufficient armor to protect the vessel from the attacks of land batteries. On land, however, no such difficulty is encountered, and consequently the advantage is all with the defense. In this way, also, the invention and construction of larger cannon constantly tends to promote peace.

"But while in the interest of peace we should have ready a supply of the most improved weapons of modern warfare, it does not follow that a large standing army should be maintained. In this patriotic country it is easy to raise an army, but great cannon and other apparatus cannot be manufactured in a month. Men who are able to handle the delicate machinery by which they are sighted and fired must also be kept in service."

TERMINAL STATION.

Quite an interesting place is the Leather and Shoe Trades building, situated on the shore of the lake, south of the great central basin, southeast of the Agricultural building, and between the Krupp gun exhibit and the Forestry building. It is 575 feet long and 150 wide; its greatest length being from north to south. In the center of the building is a hall, 64 feet wide by 480 feet long and 50 feet high; around the hall are the galleries, 42 feet wide, 18 feet high on the first floor, and 22 feet high on the second floor. The building is well lighted by 520 windows and skylights, and is built entirely of wood. The exterior covering is of staff and plaster. Two large stairways at the end of the hall lead to the galleries or second story; two small ones, in the center of the building, lead directly to the offices and restaurant. A bridge at the height of the first floor crosses the main hall. The building was erected by the subscribers to the stock of the World's Columbian Exposition, on account of the Leather and Shoe Trades building. Work upon this building was commenced December 5, 1892, and completed and ready for the reception of exhibits on April 1, 1893. It contains all the domestic exhibits of leather, boots and shoes, rubber boots and shoes, and of the allied trades; also the exhibits of leather in all forms, from all the foreign countries exhibiting at the

Exposition. Fine exhibits were prepared by the following countries, and were shown in the building, erected exclusively for leather, viz: France, Germany, Russia, Austria, Spain, Japan, Mexico, Brazil, Venezuela and the Argentine Republic. There is also shown in the building leather curios from the different foreign countries, such as the native foot-gear, clothing, harness, saddles, bags, and such articles from museums and private collections as have been made famous by age and association. A model shoe factory is in operation in this building, and more than one thousand pairs of shoes were manufactured daily during the Exposition. The entire second floor is devoted to machinery, which includes the model factory, shoe, leather and rubber machinery. The Merchant Tailors' building at the northern end was erected under the supervision of the Chicago Merchant Tailors' World's Fair Committee of the Merchant Tailors' National Exchange of the United States of America, at a cost of $30,000, the money having been raised by voluntary contributions from the merchant tailors and woolen and trimming merchants of the United States. The building is 94 feet each way over all. It is 55 feet 6 inches square, inside measurement, and is in the form of a Greek temple, a reproduction of the Erectheum, at Athens, finished about 410 B. C., planned by Pericles, and erected under the supervision of Phidias, the great Greek sculptor. The interior of the main room is octagonal in shape, which forms a small room in each corner. Upon the north and south sides is a semi-circular room, 14x22 feet. The toilet and semi-circular rooms, also the portico fronting upon the lagoon, are strictly private for the exclusive use of subscribers to the Building Fund. The walls are finished in cream and gold and decorated with mural paintings, representing the eight great historical periods of dress. First, Adam and Eve making aprons of leaves; second, a Barbarian scene; third, Egyptian; fourth, classical Greek; fifth, mediæval; sixth, renaissance; seventh, Louis the XIV. to XVI.; eighth, modern. There are also other frescoes emblematic of the trade. The floor leading from the entrance to under the dome, and all of the space under the dome (circle, 33 feet in diameter), is covered by ceramic mosaic from Shropshire, Eng-



HYGEIA BUILDING.

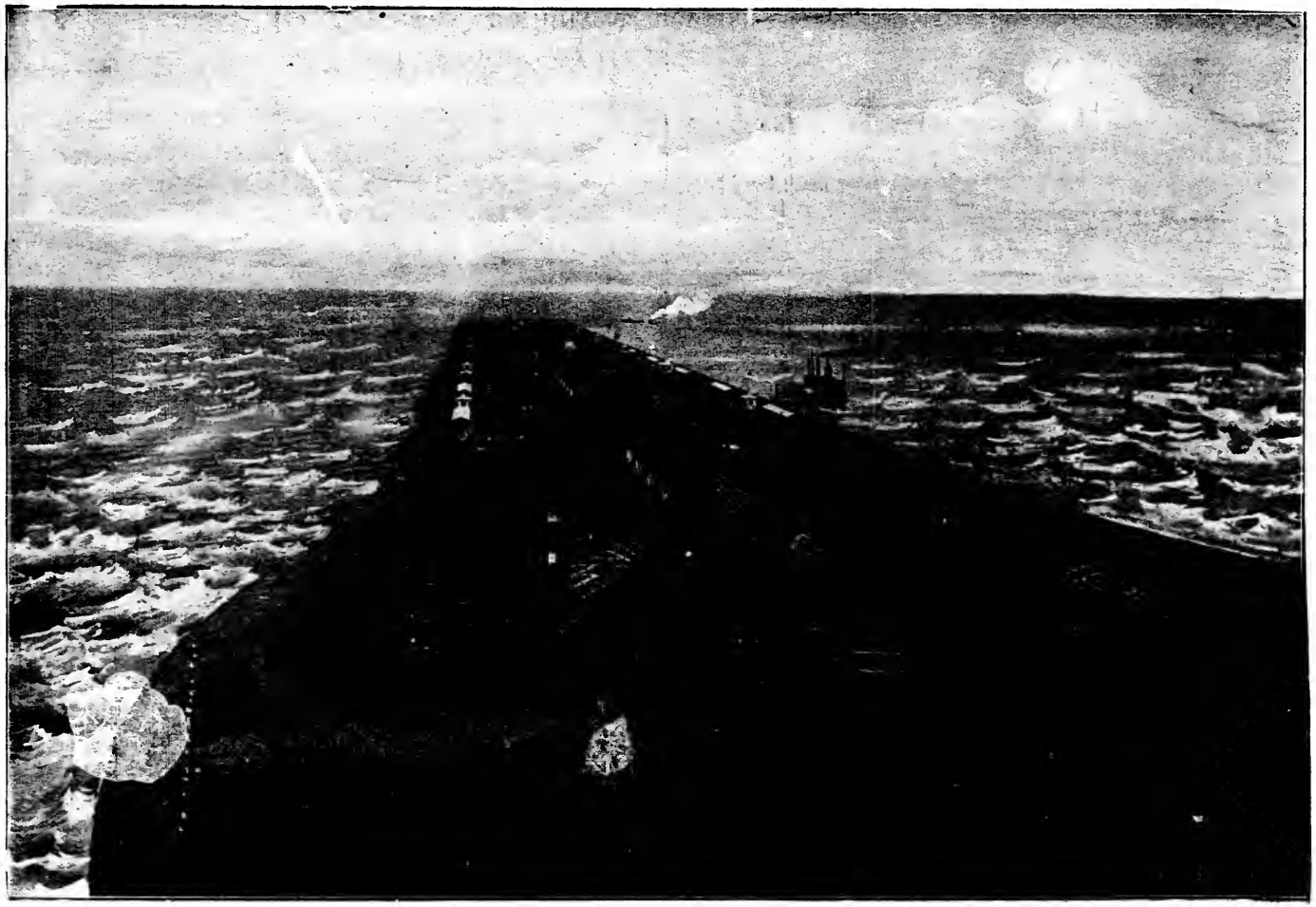
land, which, with the rich drapery of the entrances to the private reception rooms make the merchant tailors' exhibit hall most attractive.

Festival (Choral) Hall building stands upon the shore of the lagoon at a point where the two great promenades meet. Its location enables it to be seen from distant parts of the grounds across the lagoon with its beautiful wooded island and green shores. To the one side stands Horticultural building, while Transportation building stands on the other. The style of the building, which is Doric, makes it simple and severe in treatment; its form, which resembles an amphitheater surmounted by a dome, gives the building, both externally and internally, a rounded form, from which project on the four sides porticoes, the one facing the lagoon being the principal entrance, and enriched by fluted Doric colums six feet and a half in diameter. From the portico leads a flight of spacious steps, at the foot of which stand two statues, being reproductions of celebrated marbles of Handel and Bach. On either side of the portico are panels in relief work representing the progress of music, and in the panels over the doors are relief portraits of Gluck, Berlioz, Wagner, Schumann, Schubert, Mozart, Mendelssohn, Bach, Handel and Beethoven. The interior has the form of a Greek theater, except that the chorus of 2,500 voices occupies the part assigned by the Greeks to the stage, and thus it becomes amphitheatrical in form. There are no galleries of any kind to obstruct the view or sound. The building seats 6,500 persons. The decoration of the interior is in the same order as the exterior in relief work and color. A large foyer extends around the building, giving ample room for promenade.

One of the noblest structures of all is the Terminal Station which cost nearly $400,000. This station would do credit to any city in the country. Its interior is even more attractive than its exterior. It was cool and inviting even during the hottest days and nights in July and August, and its waiting room for ladies was as extravagantly furnished as any hotel parlor in the land. Not far away was the Cold Storage building, which was destroyed on the 10th of July, 21 people, mostly firemen, having perished.

Other features at the south end not heretofore alluded to are the Philadelphia cafe, Hygiea Water building, Bonded warehouse, Color building, Stables, Carpenter shop, and others. The main station of the Intramural railroad is located between the southern ends of the Agricultural building and the Palace of Mechanic Arts. The Intramural was an elevated electric railway, nearly four miles in length which ran trains every ten minutes each way at ten cents a trip, and carried as many as 70,000 people in one day. Its car house and power house are east of the dairy barns.

Adjacent is a Vermont maple sugar and maple syrup stand and a restaurant, where coffee and edibles are served from a big log, 12 feet in diameter and 40 feet in length, from the State of Washington. Close by is a cluster of a hundred windmills, representing as many makers throughout the United States. The old Dutch windmill is an exact copy of one which has stood in Amsterdam since 1806. The heavy timbers which cap the round tower are parts of the original mill. The sail shaft is of heavy wood through which the arms of the sail are mortised at right angles to each



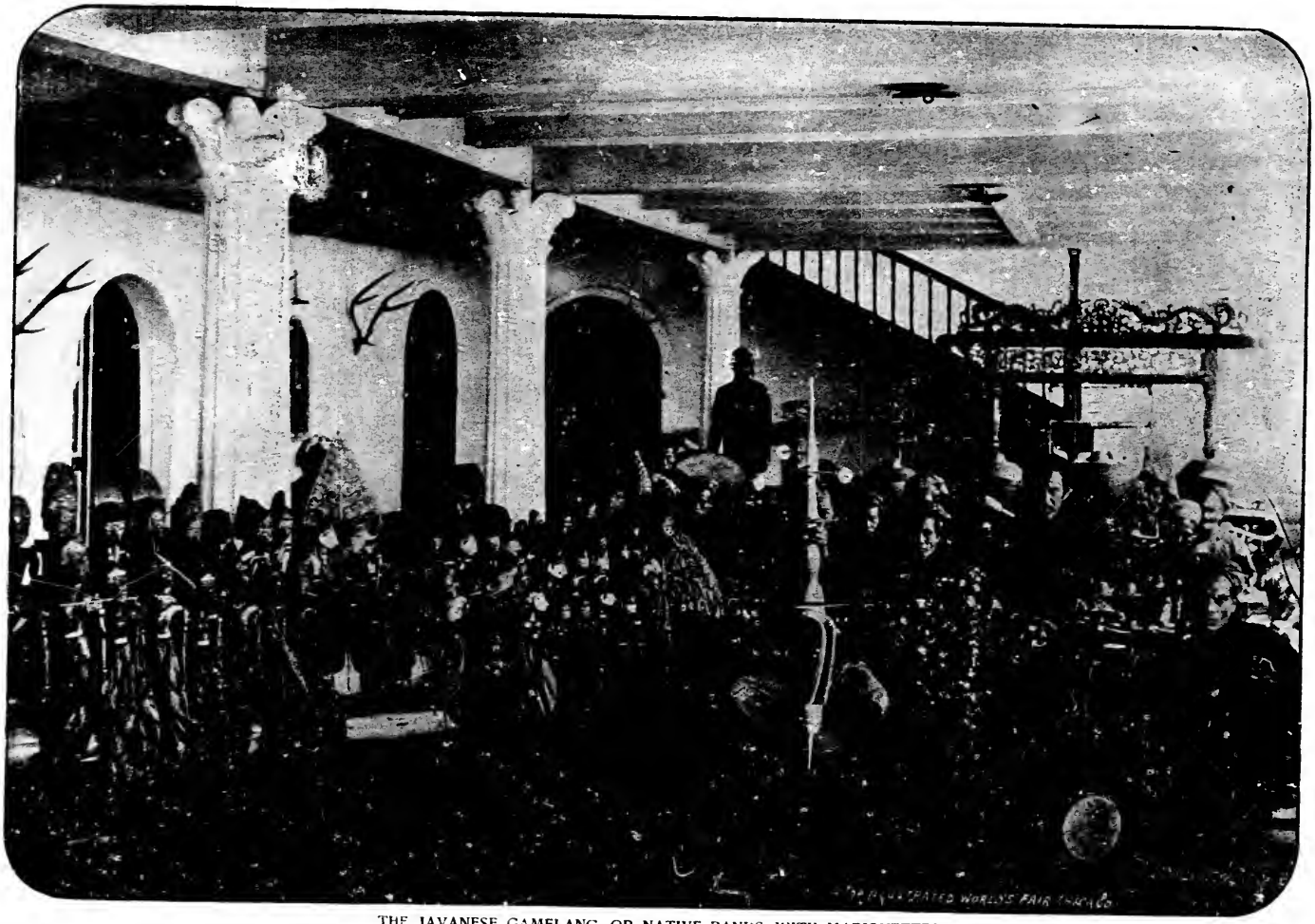
THE GREAT WHARF—MOVING SIDEWALK.

other. A series of cog wheels made of wood run into each other at various angles, and on one of these is fixed the crank pin operating the pumping rod. The largest of these wheels is 5 feet in diameter. A balcony surrounds the tower about fifteen feet below the top. The living rooms of the family in such a mill consist of a parlor, a sitting-room and a kitchen. The walls of these rooms are covered with woven cloth, after the manner of the eighteenth century, and the furniture of the rooms follow the Dutch styles of the same time.

Not far off is the wonderful sewage system, pumping works, and Indian School building. A short distance away is an old whale ship, which is an attractive feature.

There are other structures elsewhere that deserve mention: The Service building, Bureau of Admission's building, Merck Pharmacy, Illinois Women's Hospital, Emergency Hospital, Puck building, White Star Line pavilion, Department of Public Comfort, Cafe de la Marine, New England Clam Bake, Swedish, Polish and other restaurants, and more than six hundred places where water, flowers and other things are for sale, all of which dotted the landscape o'er and undoubtedly imparted relief to everlasting greatness.

THE GREAT WHARF—MOVING SIDEWALK.



THE JAVANESE GAMELANG, OR NATIVE BANDS WITH MARIONETTES.

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THE JAVANESE GAMELANG, OR NATIVE BANDS WITH MARIONETTES.

CHAPTER III.

ONE OF THE GEMS OF THE FAIR.

The Wooded Island—More than a Million Trees and Plants—Fifty Thousand Roses—Hardy Herbaceous Plants from All Over the World—The Hunter's Cabin and Japanese Building—Timothy Hopkin's Sweet Peas—John Thorpe's Church—A Spot Blessed by Heaven and Rivaling the Rainbow.

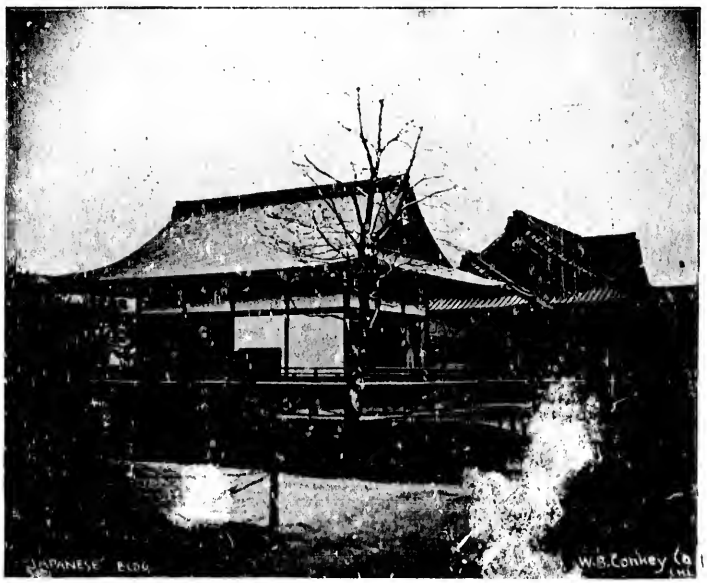
IN many respects the Wooded Island (or islands), including the lagoons that surround it, is the gem of the Exposition—and the credit belongs to Olmstead, the landscape gardner; Ulrich, the landscape beautifier, and Thorpe, the floriculturist. This trio made from an uninviting marsh a thing of beauty. When this trio took hold of the park to put it in shape for the reception of the buildings, they deepened the hollows, made silvery lagoons of the mud puddles, and created an island which to many is the prettiest thing of all. Walks, roads and avenues of trees followed, and the lake was hemmed in by a stone embankment, along which there is a magnificent promenade. The islands are fringed with shrubbery and great stretches of wild flowers growing in colonies, as they do on the prairies and borders of woodlawns and in marshes all through North Illinois. Semi-aquatic plants troop down to the brink; tall reeds and other water plants rise from the lagoon itself, and on its quiet surface lily leaves float dreamily, while the low outlying isles are tinged a living green by the sedgy things that creep to the water's edge.

There have been planted on the islands and near them 12,618 trees, 50,644 shrubs, 151,394 hardy perennial, herbaceous, and miscellaneous plants, 136,678 aquatic and semi-aquatic plants, 3,300 ferns, 9,582 vines, climbers and ornamental grasses; 60,000 willow cuttings, 114,920 bulbs and similar plants, and a great collection of native plants, which were used by the carload. The trees used were principally willows, poplars, water maples, cherries, elms and lindens. The shrubbery consists of various kinds of low-growing willows, cornuses, spiræas, loniceras, lilacs, snowballs and barberries. These form the basis of the groups, but to give variety and test their adaptability to the climate many rare shrubs were added.

The inner, higher part of the wooded island, reserved for the use of the Floricultural Department, was laid out in lawns, flower beds and a rose garden, while the extreme north end space was set apart for the Japanese temple and garden, which are to remain as a premanent reminder of the patience, ingenuity, gentleness, good will and love of beauty of that nation of artists. The flower exhibits on the island form a long and charming procession. The Wooded Island is

LOG CABIN.

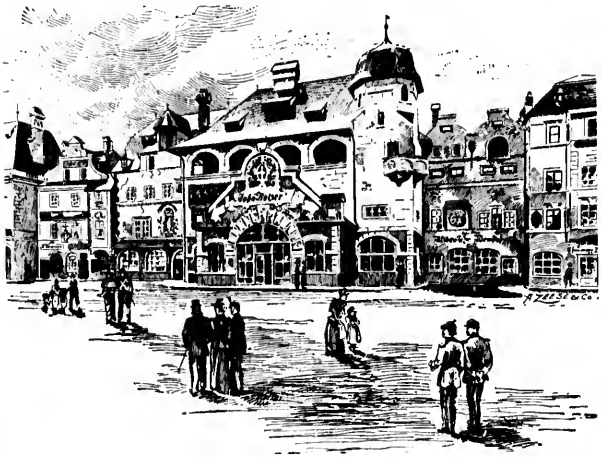
about sixteen acres in extent, ten of which are devoted to the plantations of trees, shrubs and native plants already described. Through the middle is the long sweep of lawns and flower garden, about six acres in all. At the south end of this space is shown for the first time in the west, it is believed, a combination of plants and style of grouping that is seen on large places in the east, notably on the grounds of the Newport home of the late Miss Catharine Lorillard Wolfe, consisting of azaleas and rhododendrons, and in the partial shade of these shrubs great clumps of lilies in many varieties are to be seen. The bulbs and shrubs bloom at different seasons, and thus the arrangement affords double pleasure. Over the lawns north from this fine exhibit is seen a green and flowery wall, the first hint of the rose garden—the glory of the island. This is a plot of one and one-quarter acres, oblong in shape, and inclosed by a wire fence supported by



JAPANESE BUILDING.

posts nine feet high set at intervals of eight feet. Between the posts the wire netting droops in curves, the lowest point of each curve being six feet above the ground. The fence is lined with climbing roses and draped on the outside with many kinds of light-growing creepers, and the whole inclosed by a row of 22 varieties of sweet peas, contributed by Timothy Hopkins, of San Francisco. This gracefully-shaped, vine-covered, flower-starred wall is in itself a thing of beauty. Access to the interior is at four points only—in the middle of each side and at the middle of each end—so the garden possesses the first requisite of a garden—seclution. It also possesses the second—flowers.

Fifty thousand roses were in flower in June and July. Thirty thousand of them belonged to the taller-growing hardy class; then there were twenty thousand tea and other tender roses of the low-growing kinds. North of the garden may be seen a great nursery exhibit, where the foremost growers of nursery stock show ornamental trees and shrubs such as home makers should know and use. West of the nursery exhibit a number of florists and planters have a great show of hardy herbaceous plants, one firm alone sending 10,000 plants. Still west of these, England justifies herself for clinging to fine old herbaceous perennials, such as peonies, phloxes, etc., a class of plants grown to perfection by the English. Just south of the approaches to the Japanese garden Germany displays her formal favorities, such as stocks, asters, zinnias and dahlias. Thus the whole sweep of the lawns from end to end is utilized by the best known plantsmen of Europe and America for their large and attractive exhibits.

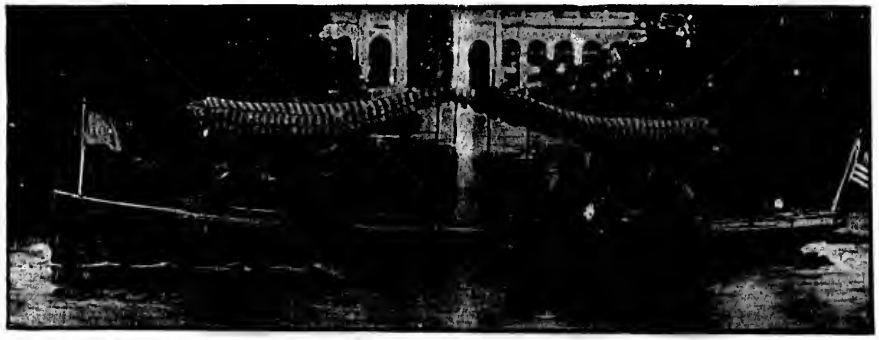


OLD VIENNA.—MIDWAY PLAISANCE.

There were 35 specimens of sunflowers, 32 that are natives of America; two of Japan and one (the big sunflower) whose nativity is known to no botanist.

The rhododendron exhibit on the Wooded Island during June was one of the most gorgeous and luxuriant ever seen anywhere, as there were special selections of this famous flowering plant sent from Germany, Belgium and France, and from a number of American florists. Conspicuous over all other exhibits was that of Frederick W. Kelsey, of New York, who had at the south end of the island and just off from the broad path that leads along the eastern water front, erected a large white tent. On both sides of the entrance stood a couple of immense rhododendrons. These were fully ten feet high and, when set in the ground ten days

before, a hundred delicate blossoms had given evidence of their being in full bloom. Through the wide opening were revealed glimpses of a perfect mass of bright colored blossoms that tempted alike, with irresistible impartiality, the soft zephyrs, the warm sunlight and the eager gaze of every lover of flowers who passed the tent. Several hundred plants were arranged in a solid mound that rose from a low height at the sides of the tent nearly to the top of the pole in the middle. The dark green color of the glossy, smooth leaves formed a striking contrast to the brilliant colors of the flowers. Each flower is composed of twenty or thirty separate and smaller flowerets. Each of these tiny flowerets is as big as a pink and perfectly formed. The effect of one of these many-flowered clusters is very pretty. Each floweret is striped with a different color—the pink flowerets with deep red, the white ones with purple, yellow and every imaginable hue. Each cluster, though only a single rhododendron flower, looks like a whole bouquet.

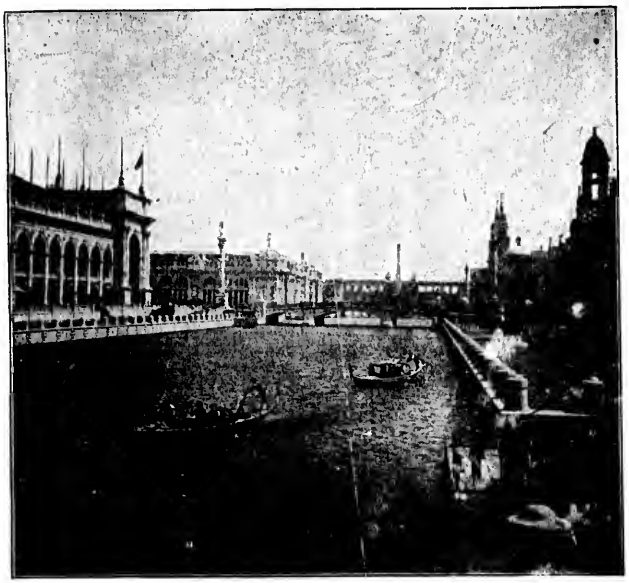


ELECTRIC LAUNCH.

Imagine about 500 of these clusters, of varying shades and colors, all grouped in an oval mound, against a background of deep green—truly this mound of floral beauty surpassed in quiet elegance the more startling but less beautiful tower of light in the electricity building near by. Over a hundred different varieties were mingled in this enormous mass of rhododendrons. Only florists would appreciate the album grandiflorum, the bandyanium, the delicatissimum, the everestianum and the coriaceum; it is a peculiar coincidence that almost without exception the names of the different varieties of the rhododendron are almost as voluminous and unpronounceable as the title of the flower itself. But all can easily imagine the beautiful sight of crimson, pink, red, silver, lilac and rich purplish crimson flowers, tinted with variegated hues and indiscriminately heaped together in a wonderful profusion of floral color and beauty. Outside the tent there were several choice specimens of conifers, Japanese Maples, and other strange and rare shrubs, plants and [illegible]

The Wooded Island is reached by three bridges. At the southern end is seen the Hunter's Cabin, a novelty to many. At the northern end is the Hoodo, or Japanese building, which consists of three pavilions, connected by corridors,

each representative of the decorative and architectural features of three prominent epochs in the history of Japanese art. The general ground plan follows the arrangement of the Hoodo Temple (hence its name), an interesting monument of Fujuwara art, erected by Yorimichi when at the height of his power, but is modified for the benefit of the main architectural unity and to suit the want of the present exhibition. The left wing is intended to represent the Fujuwara style, ranging from the tenth to the thirteenth century, when the pure Yamato school broke through the traditions of the Konin era. The interior decoration shows a room in the palace of the court nobles, who spent their refined leisure amid poetry and music. The right wing shows the building in the Ashikaga period, just about the Columbian epoch, when Japan, emerging from the war of the two dynasties, started into a new art-life under the influence of Zen-Buddhism and Lung-philosophy. Purity and Simplicity was the motto, and most of the rich colored decoration of feudal palaces was given up for plain ink landscapes, in the style of Sesshin and Soami. The interior is reproduced from the Ginkakuji, a villa of an Ashikaga Shogun. The central pavilion is in the style of Tokugawa in the eighteenth century, a part of a daimio's palace. It represents a sitting-room of a feudal lord. The central wall is covered with a huge pine emblem of strength and endless glory, with phœnixes. The adjoining chamber is decorated with fans of different designs. The ceiling consists of nearly 270 phœnixes in gold and color, encased between frames of gold lacquer and gilt metal work. Each of the rooms is furnished exactly in the styles of the periods.



GONDOLAS.

Wooded Island was so crowded with bloom and fragrance during the warm months that great swarms of honeybees invaded the fairyland and made each flashing poppy or sweet-tipped columbine nod under the weight of its nectar-sipping burden. So varied were the colors that a hundred prisms seemed to have been hung in the clouds to reflect the glories of a hundred rainbows. So luxuriant was the foliage that even the maples and elders and oaks seemed to have forgotten

their rules and built their leaves on special lines, bending their boughs to the very earth. Nursed and petted for twelve months, the bog and sand and swamp blossomed like a royal garden and it is no wonder that the shaded nook about the hunter's cabin and the jungle of the tropical hut and all the other bowers of the island were daily and nightly thronged with people.

Well, John Thorpe made the most of it. And when the gates are closed and great piles carted out to the bonfires and melting pots and the history of the great event shall be more voluminously written, your Uncle John will have a golden page in the record which will tell of him grandiloquently as a florist, a botanist, a genius, a man whose whole heart shines in an honest face and whose rough dress covers a disposition as tender and sympathetic as a maiden's love. With the gentleness of a mother he has nursed the birds and blossoms and taught the pansies and dahlias and poppies how best to bloom and brought out two flowers where nature put a single blade.

His worship, his religion and his whole existence are his flower pets, and no man was ever more consecrated to his lot or more happy in his work than this one. He has always been at it and desires nothing else, and, as he sat with his legs stretched on the grass one afternoon he told the tale of how it all happened.

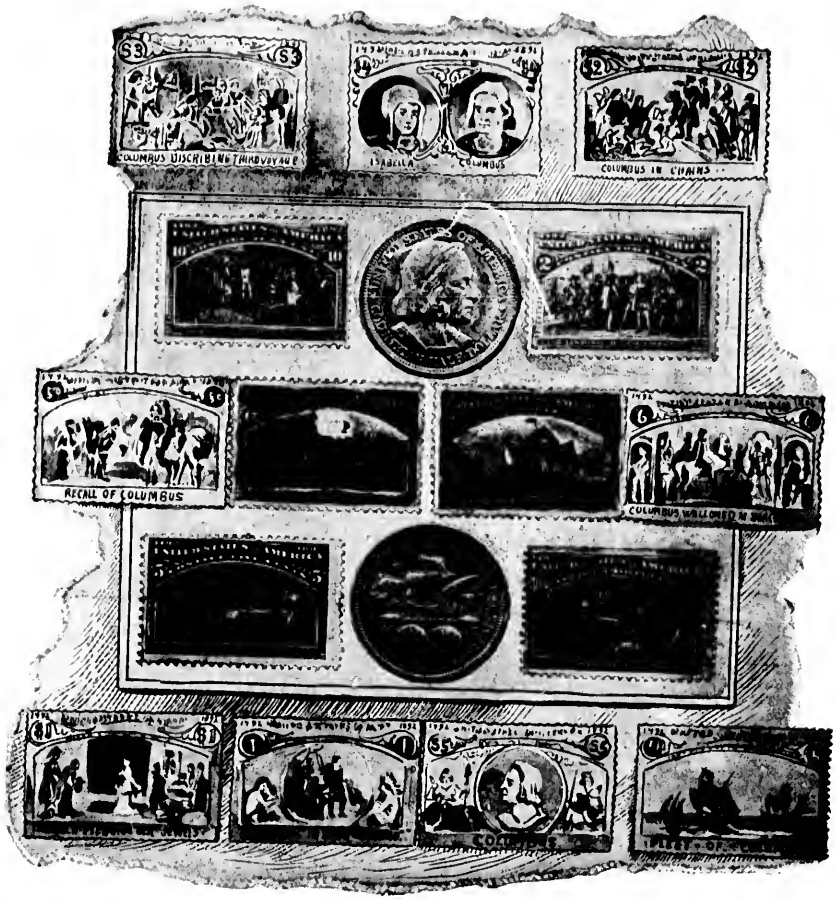
He was always talking with the blossoms, as he puts it, and when a wee boy he wondered why the violets were always blue, why the grass never grew any way but green and why nature never missed by accident the lesson and way taught it when the world began. Under the wide oaks of his English home he lay flat upon his back and wondered why no clouds were square. He had never seen any water that wasn't blue and sparkling, nor any rill that didn't laugh and chatter and dance and glisten like a coronet under the sunbeams. He grew up in the woods and among the hedges and primroses and toddled with his father about the meadows of a gentleman's home. From the very start the trees and shrubs and vines were his associates and what the boy loved the man adored. Thus he came near to nature's heart and nature to him was all.

Wooded Island is his church, and as long as he draws this fleeting breath some such spot, blessed by heaven and rivaling the rainbow, will be his altar. He wants no vaulted domes, nor pointed minarets, nor tinseled spire, nor velvet aisles, nor carved pew, nor quarelling choir, nor finical pastor. These be right, so he says, and he who wants them is as good as himself, but he prefers the cool, clear air as his nave and transept, the blue circle of sky as his high roof and the gentle rush of the breeze through the sighing poplars as his choir. This is why he spends many a Sunday in a reverie in his splendid bower and makes the Wooded Island his church.

There are others who worship at this shrine while the morning star flings its splendor over a sleeping world, for some writer has expressed himself thus:

When tremulous morning lights waver and burn like the enchanting glance of eyes lovelit and surprised, when flakes of summer glory melt in a sunshine dusky with golden promise and full of tender preference, that is the time to rest and dream in the Wooded Island. Not in the courting hour of shadows, when

brisk winds stir the flowers and plighted evening leans towards the night, nor at high, cruel noon, that bruises sentiment and withers violets, but in the morning, sweet with disappearing dew, when tears of dawn lie only where cool silence waits, and when white roses faint against the rich brown earth or bleeding heart droops in scarlet thirst, plaintive as a hopeless sigh. Then the young trees scatter a maze of lace-work about the gardens, the prettiest blossoms grow almost visibly and fragile things too delicate to bear the touch of sunbeams die in a wave of perfume There is a stillness that is enchaining and that poetry of loneliness which weds the soul to flowers and the melody of birds. The dripping grasses are so wondrous fresh and the leaves so restless. Where the sun blazes hungrily tendrils curl and petals fade as purity beneath the unkind torture of passion or hardily gather strength like the martyr's halo rising out of fire. That very few can know the lovely island in this early glory is one of the selfish delights of the Fair. "Myself and misery" and the man who works a fiendish garden-hose in relentless spurts of mercy to the flowers seem to about constitute the visiting list of the morning. At night it is not safe for sympathetic ardor to be adrift within gunshot of the hallowed spot. There is more undiluted adoration afloat in the secluded atmosphere than ever a lover's lane discovered to the rude eyes of bachelors and earthy scoffers. There is a teeming simoon of endearments on tap from 8 p. m. till the guards are called in and the lovers and lights put out. The swift splash of a night-bird's wing in the black lagoon startles more timid embraces out of plumb than can ever be braved again and the inhuman search-light is a distressing tattler, dreaded as a kodak. But of the tangled meshes of malaria and amorous glances it is difficult for a rank outsider to gleam much evening consolation in the island, but in the beautiful morning there is a glimpse of heaven for tired eyes and a touch of gold to aching hearts and weary lives.

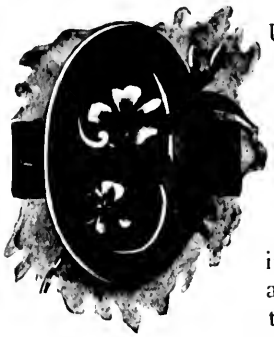


COLUMBIAN STAMPS AND COINS.

CHAPTER IV.

FIFTY CENTS FOR A CUP OF TEA.

Maria and Her Mother on a Stroll—Tea from Ten Cents to Fifty Cents a Cup—And Tea for Nothing—Bread Known as the Light of Asia—Where One May Feel at Home—That Which Stimulates But Does Not Intoxicate—None Should Miss These Tea Gardens.



UT in a northeastly direction, beyond the Fish and Fisheries building, is a Japanese tea garden. "Fifty cents for a cup of tea?" said a scandalized old lady who was hesitating before the gate of this Japanese tea garden. "My sakes alive, I don't spend that much in a month to home, but I reckon we'd ought to see what it's like now we're here. Come on, Maria!" And they went in. The tea drinkers at the Fair are having such a chance to revel in their favorite beverage as has never come to them before, and very likely will never come again. This tiny Japanese tea garden, that is like a bit out of another world, is thronged all day long with curious people who have drunk tea all their lives just as they have eaten steak and pie, and have regarded it perhaps as a necessary filling for their depleted interiors, but certainly as nothing more.

To them the dainty ceremony and grave, decorous formalities with which the Japanese invest the operation come with something of the force of revelation.

When the visitor walks through the bamboo gate of the little tea garden he steps in one stride from dirty, dun colored Chicago, with its sordid mercantile atmosphere, to Yeddo, basking in the shimmering sunlight of a perfect afternoon. It always is afternoon in that little tea garden, nestling down by the water's edge so lovingly, and the sun always shines there.

It may be raining torrents on the rest of the Fair, but the visitor feels confident that it never does here. Nature wouldn't have the heart to.

The skies are always blue and the sunny light is ever gleaming on porcelain dragons and antique bronzes, and the little rippling waves are always lapping the sedges along the shore with a happy sound, suggesting distant merrymaking, and over there on the hillside, dappled and flecked with the yellow sunshine, the little gardener is always at work with his exaggerated shears, apparently clipping one blade of grass at a time and never in the least hurrying, for he knows deep in his heart that there is plenty of grass to cut and an endless succession of sunny days to cut it in.

Over on the porch of the ceremonial tea house they are always making tea, and such strong, rich, fragrant tea it is, too. It goes to the head of the visitor, who sits on a gay fat cushion and sips and sips and nibbles the while on the sugar cakes which accompany it, and afterward goes peering around in the tiny rooms of the doll house that the tea people call home, and finally his ideas get perverted, and everything seems perfectly natural and worthy of imitation. He begins to see the folly of chairs and tables and longs to go hopping around on the matted floors. And stockings with thumbs on them like mittens look sensible and cool, and as he looks down on his own hot patent leathers he no longer takes any joy or comfort in them.

There are two tea houses in the little garden, a big, cool, shady retreat, where the common herd who just drink tea may resort, and the ceremonial tea house, where those to whom tea is a religious conviction may observe their rites.

The floor of this latter house is raised some two feet from the ground, and visitors sit along the edge of the open porch and put their teacups on its shining cedar boards and watch the little tea-makers hopping about like a bevy of amiable and highly intelligent hoptoads.

First, the soft-spoken attendant hops down with a dish of candy. There are two of them, looking like bricks of ice cream for a doll's party. They rest on a transparent square of some shining material that might be a very delicate kind of paper, but it is not; it's a shaving.

Following the candy comes a rough-looking cup filled an inch deep with liquid so startling green that the visitor is almost afraid of it. This is the ieucha, powdered tea—the very best leaf grown carefully ground in a little bronze mill and steeped in the cup, and stirred with a bamboo-whisk broom. The rough yellow cup which the visitor looks at so slightingly is antique satsuma, more costly than the finest egg-shell china.

The attendant brings the cup on a silken mat, from which the drinker lifts it. This being disposed of, a rather more decorative cup follows, containing tea made from the natural leaves and steeped in a pot. This is called sees-cha, and is pale yellow. A sample package of the tea and a little fan accompany the second cup as a souvenir, and usually cause consternation to the visitor, who does not know how to transport them from the grounds.

In the ceremonial tea house is a tiny, paneled room, a fac-simile of the room where State teas are held in a Japanese house. There are some beautiful bronzes here and an iron raven to be used as an incense burner.

By the door is a bronze lavatory, where guests wash before entering. The tiny room is so spotlessly clean and sweet with its cedar and bamboo and matting that a lady visitor suggested the feasibility of a Turkish bath before allowing the guest to enter.

After the tea drinker has exhausted the possibilities of the Japanese garden if he or she still feels a craving for the seductive stimulant a few paces further on beyond the intramural is the temple-like structure of the India Tea Association of Calcutta.

There is no charge for the tea here. The weary guest may bring his lunch and drink the companies' tea to his heart's content. If the guest is male he sits out in the big galleried room, hung with rich rugs and resplendant with gleaming weapons, and under the beneficent eyes of some fat gilt god he drinks of the "Star of India."

The feminine guest is treated to more seclusion and is fed a brand known as the Light of Asia. The attendants are suggestive of anything but tea drinking —great swarthy fellows clad in crimson and gold. Their uniform is adapted from that of the viceroyal bodyguard. Most of them are fiercely bewhiskered, and it gives the feminine tea drinker rather a shock to receive the soothing draught from such piratical parties.

At the door sits a pirate in white, with enough silverware in the shape of weapons on to furnish the service for a State dinner.

The Indian tea is a rich amber color and smells like a hay field in July. The representatives of the company are very hospitable.

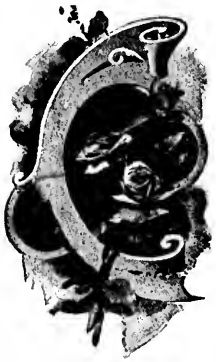
"We like," said one of them, "to have people come and try our tea, and we like to have them bring their lunches and feel at home."

STATUE OF "REPUBLIC," EAST END OF GREAT BASIN.

CHAPTER V.

THE PERISTYLE AND COURT OF HONOR.

Columned Splendor Indeed—The Impressive Beauties of the Greek Peristyle—Nothing Like It Has Ever Been Seen or Attempted—Music Hall and Casino—The Pier and Moveable Sidewalk—The Court of Honor by Day and by Night—Statue of the Republic and MacMonnies Ship of State—The Illuminated Fountains.



COLUMNED splendor indeed. The portals of the World's Columbian Exposition look out on the blue waters of Lake Michigan. A Greek peristyle, white and colossal, faces the waves which less than a century ago bore the canoe of the Indian, the boat of the adventurous trader. What if this stately portico had flashed on the vision of Marquette or La Salle when they sailed along these shores in the seventeenth century, each the Columbus of our inland seas? Either would have thought that solitude had made him mad. What if this columned splendor had broken on the dying gaze of those first settlers of Chicago who only four score years ago were massacred on these very sands by savages? Those martyrs of civilization would have accepted such a glimpse as the threshold of the mystical City of the Soul.

On a ruder and a wider sea than this tossed the caravels of the Genoan sailor 400 years ago. In the dreams that mocked this world-finder in his hours of sleep, was there not a forecast of the great white temple of humanity which the distant future would erect to the glory of his name? Surely this vision of the future was given to encourage him in the dark hours of his voyage, or at least to solace him in chains.

Let us look at this peristyle and its surroundings. Nothing like it has ever been seen or attempted. It is grand and impressive, commanding and beautiful. The Peristyle is 600 feet long, 60 feet wide and 60 feet high. At its center is a grand archway, forming a portal from Lake Michigan to the Grand Central Court. This portal is dedicated to Columbus, and is inscribed with the names of the world's great explorers. Crowning it is a group of statuary, emblematic of the progress of the world. The Peristyle bears forty-eight columns, representing the states and territories. Each state's column bears its coat of arms. The cost of the Peristyle, with the Casino and Music Hall was $300,000.

The latter, which is located at the northerly end of the great Peristyle, is 140 feet wide by 246 feet long, and about 65 feet high. The main audience room is in

the center of the building, and is 126 feet long by the full width of the same, and occupies the full height of the structure. The space for the orchestra and chorus is at the east end, and it is in the form of a great hemicycle or recess, which opens into the main hall by an arch 66 feet wide and 54 feet high. The recess is semi-circular in plan at the rear and 50 feet deep from the front of the arch to the back of the circle. The ceiling of this recess or hemicycle is shaped like a quarter section of a sphere, so that the sound of the music is projected forward into the audience room. Just outside of the arch on the main floor is the platform for the orchestra with the chorus rising behind on a series of wide steps. To the west of the orchestra is the parquette, which seats from 800 to 1,000 persons. These seats are also arranged on wide steps or platforms which rise gradually to the rear end, thus giving an uninterrupted view of the stage and conductor to every person. All around this parquette, except on the side occupied by the stage, is a loggia or passage about 20 feet wide, connecting with the main hall by many wide doorways, thus giving ample space for the entrance and exit of the audience with comfort and celerity. Above this loggia, which is about 20 feet high at the exterior wall and 14 feet high at the inner wall next the parquette, is the great balcony, which seats about 1,200 persons. The seats here are also arranged on rising steps, so that every one has a perfect view of the stage and of the audience in the parquette below. The seats of the balcony sweep round in a semi-circle at the west end opposite the stage, thus giving the audience room and the stage combined the form of a great oval. Around the front of the balcony are Corinthian columns which support the roof, and over the inner space is a large skylight which gives ample light by day. Around the rear of the balcony are also a series of large windows commanding a view of the great court on the south and the lake on the north. The main entrance is at the west end through three wide archways into a great vestibule 60x80 feet, and thence through three great openings into the loggia about the parquette.

EAST SIDE OF PERISTYLE, LOOKING NORTH.

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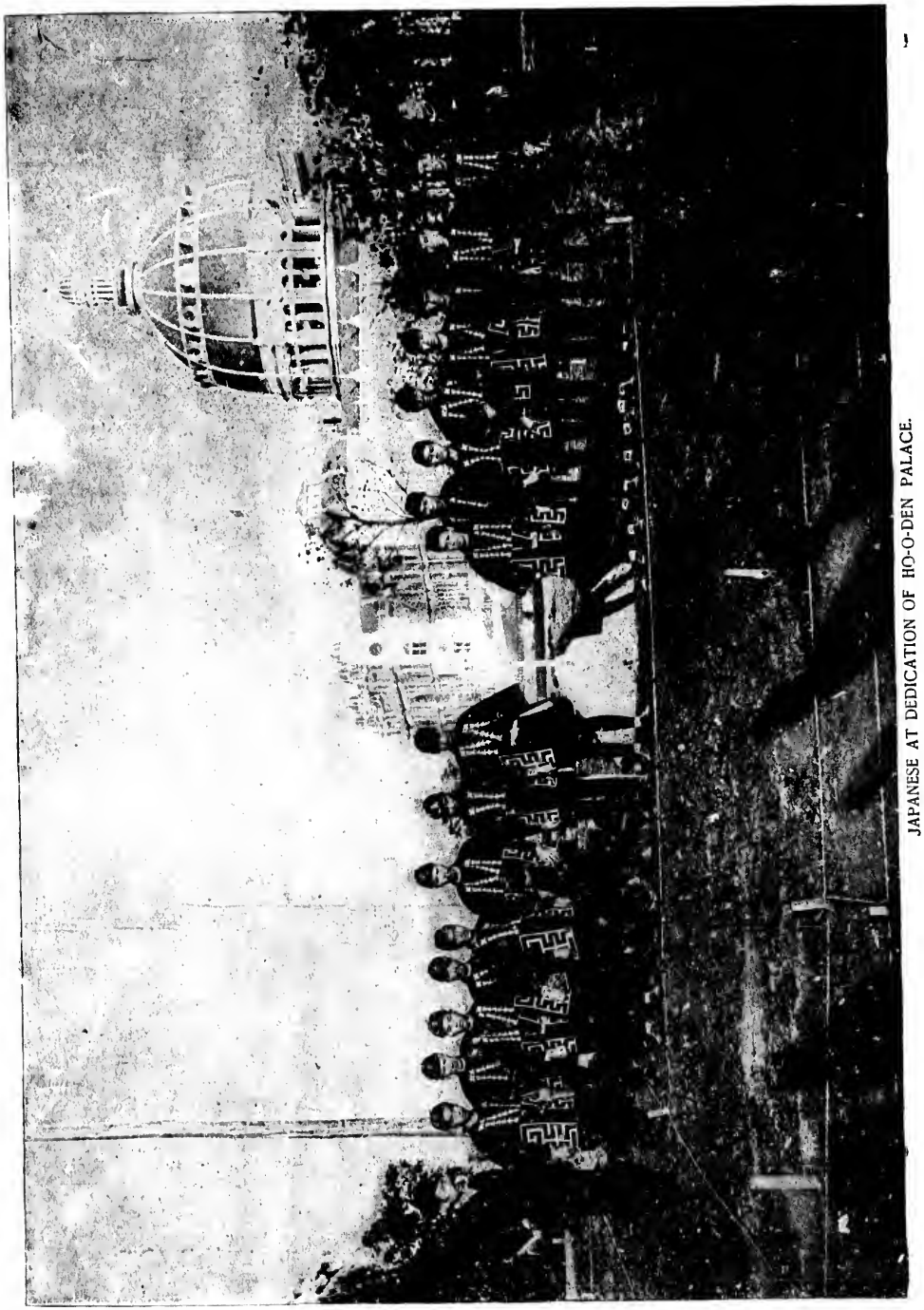
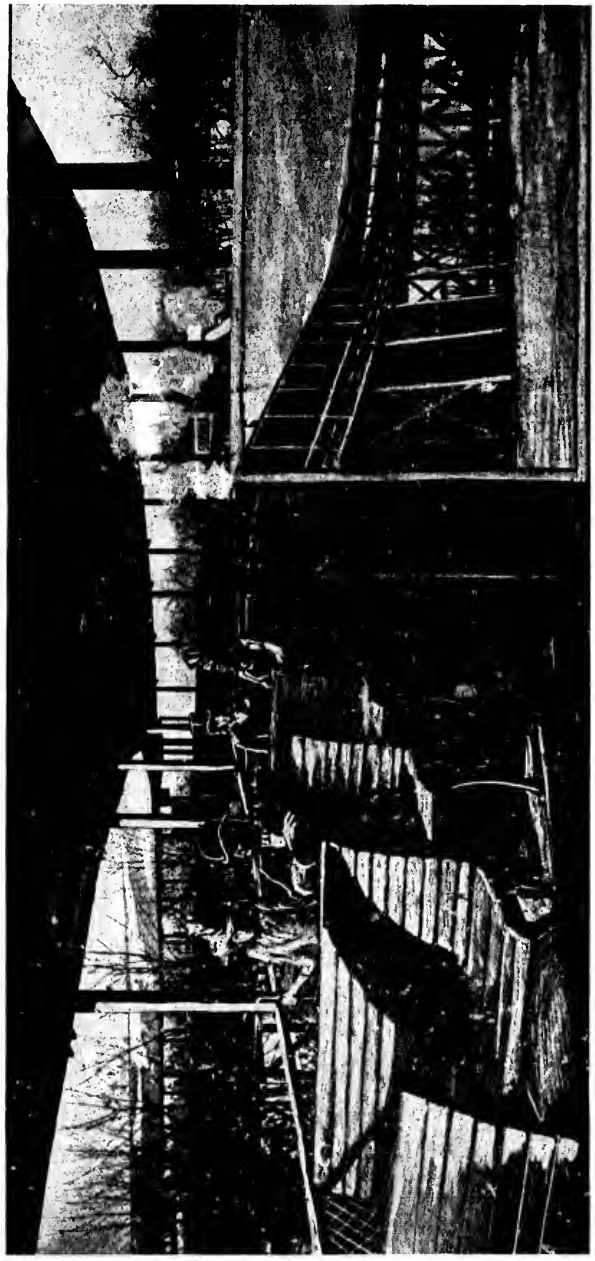


JAPANESE AT DEDICATION OF HO-O-DEN PALACE.



MOVING SIDEWALK.

On each side of this vestibule are wide and easy stairways, giving access to the balcony and second story of the building, and over the vestibule is a smaller hall 60x80 feet in size, which is for a recital hall, etc. Opening off this hall are several rooms, suitable for offices or dressing rooms about 25x40 feet each. Opening upon the vestibule, loggia and the balcony above are large and numerous dressing and cloak rooms of about the same size as above. At the other end and opening from each end of the orchestral platform are rooms for the accommodation of the Director of Music and the principal singers and performers, with ample toilet rooms connected therewith. At the rear of the hemicycle are large rooms for the chorus, and reached by private entrance directly from the seats. Above these rooms are others of the same size which are used for meetings and as offices for the Bureau of Music. There is a third floor which also contains several large rooms for general purposes. On this floor and over the balcony is a large standing place of the same size as the balcony below, which opens upon the main hall through a series of arched openings in the coved ceil

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ESQUIMAUX VILLAGE AT THE WORLD'S FAIR.

ing of the audience room, which will hold a great many people in case of an extra occasion, and is reached by ample stairways. The interior of the hall is richly decorated in color, with emblematic paintings on the face of the east wall above the great arch, and in the panels of the ceiling. It has been specially planned for acoustic effect. The great arch of the hemicycle is richly ornamented with architectural detail, and the whole can be brilliantly lighted by electricity in the most novel effects. The architecture of the exterior is like that of the Casino and Peristyle—Roman Corinthian—and richly ornamented in detail. Around the entablature above the columns are inscribed the names of the greatest composers and on the pedestals of the balustrade surmounting the cornice are placed many statues, 12 feet high, emblematic of the art of music.

The Casino, one of the most popular structures on the grounds, is located at the south end of the Peristyle, and its dimensions are the same as the Music Hall at the north end, 140x260 feet. It contains restaurants and resting rooms as a part of the Bureau of Public Comfort, and is a favorite resort for visitors.

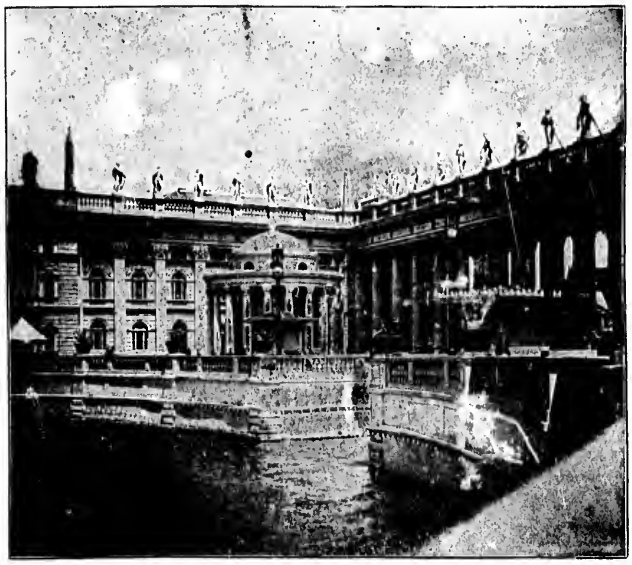
Reaching out into the lake is an immense pier, half a mile in length, containing the movable sidewalk.

Immediately west of the noble Peristyle and connected with it is the famous Cour d'Honneur, the most attractive and spectacular part of the grounds. There is not a prettier stretch of landscape at Jackson Park than this, and to fully appreciate its grandeur, one must take a somber bodied and brilliantly canopied Venetian gondola and gently traverse the grand basin—which is the central star in the terrestrial Pleiades. Lining the water's edge appear the tall, straight rostral columns supporting the figure of Neptune, who stands grasping his trident, with disheveled hair falling about his shoulders, and eyes fixed seaward, while Tritons sport all around. To the west is the Columbus memorial, whose grand conception has already made Sculptor MacMonnies famous. The idea of the fountain is that of an apotheosis of modern liberty—Columbia—and takes the shape of a triumphal barge, guided by Time, heralded by Fame, and rowed by eight young female standing figures, representing the arts and industries.

Between these two groups of rowers rises a massive pedestal with E Pluribus Unum enscrolled across the forward panel. On this pedestal rests a smaller, supported by four kneeling children, while seated aloft is Columbia, the principal figure of the fountain. Dignified of bearing, her right arm placed lightly on the back of her chair, her left supporting a flaming torch, her feet upon the globe, she fittingly personifies the proud young nation she represents. Erect, alert, with head held high, she seems to go serenely where time and fame conduct. Around the basin in which the fountain plays are columns 50 feet high, surmounted with eagles, and about the edge are groups of fantastical marine monsters, half horse, half fish, rearing as though about to plunge, and spouting heavy streams of water from their nostrils. The smallest figures are over 12 feet, while the highest are over 20, and it is the largest and most beautiful fountain thus far ever produced.

By a deft movement of his single oar the gondolier has turned his slender craft about and the shimmering waters of the lake are seen through the graceful

columns of the Peristyle. These columns remind one very much of the Bernini at Rome in the court of St. Peter's. Between the Peristyle and the head of the basin towers the majestic "Statue of the Republic." Though 75 feet high and the largest effigy in the world, Sculptor French has embodied it with such ease of pose, dignity and commanding presence, that, gigantic as it is, it seems perfectly in unison with its noble surroundings. The statue grasps in her left hand a pole draped with a pennant and surmounted with a liberty cap, while the right arm is stretched upward to its utmost length, the hand upholding a globe on which an eagle rests with outspread wings. The drapery lays in heavy fold on the arms and shoulders and falls in graceful lines on the sides. A sword is pendant from the right side and the features wear a look of proud contentment and happiness. The head is very similar to the profile on the American silver dollar, and the statue strikingly resembles Bartholdi's "Liberty" in the New York harbor. Marble stairs lead up from the waterway on every side; stone and iron balustrades adorned with urns over-running with trailing vines and brilliant blossoms, put an abrupt termination to the velvet and verdant lawns that are gently terraced to the stone wall that rises from the water and confines its banks, as the Seine is confined through Paris. Wonderfully beautiful is all this, and creates a sort of bewildering admiration; to think that with canal, gondola and the plaintive love song of the gondolier, one is after all not in Venice. Then rising all about are the wonderful structures—seeming marble palaces—the Agricultural, Machinery Mines and Mining, Electrical and the leviathan Manufactures buildings, while the Administration building fills a like position to the Kohinoor in the British crown. And this is the Court of Honor seen by sunlight, the tiny dancing waves caressing the sides of the diminutive craft, with snowy swans and ducks gliding about in stately beauty. The brilliant colorings and creamy whiteness of the buildings almost dazzle the eye in the noonday heat.



CASINO.

MacMONNIES FOUNTAIN. LOOKING EAST.

MacMONNIES FOUNTAIN. LOOKING EAST.

MacMONNIES FOUNTAIN. LOOKING WEST.

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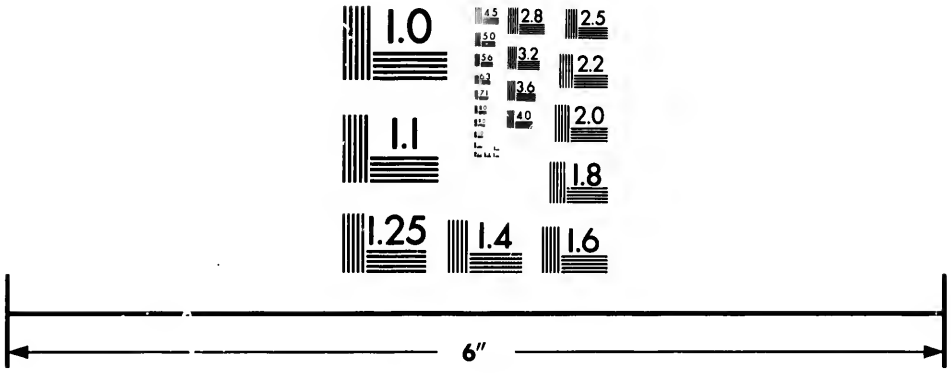

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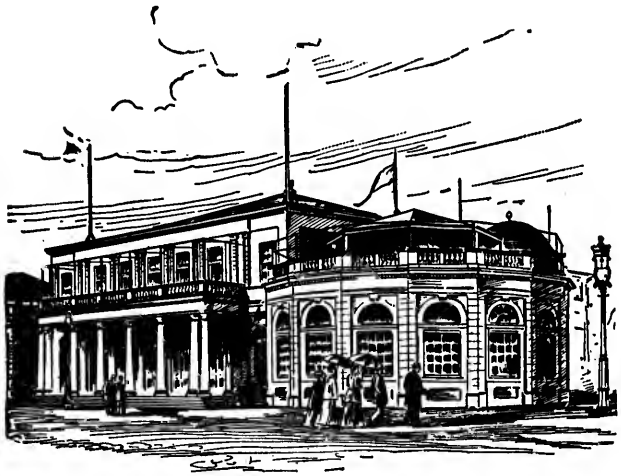
But fancy one's self on the scene, gondola included, after dark, the cooling breezes from the lake ruffling the water and fanning the cheek and the gorgeous fete de nuit in full progress! All the surrounding buildings are ablaze with opalescent light. The basin is necklaced with a double string of brilliants, and the domes, the arches, the pinnacles, the turrets, the pavilion roofs and angles stand out against the sable mantel of night in golden chains of luminous glory. The gilded dome of the Administration building at first seems a floating crown of a myriad of diamonds, then rests upon an iridescent pillow fringed with strung jewels and beads of fire. The MacMonnies ship of state sails majestically in a sea of flame. The magical effect of the prismatic rays cast from the concealed heights upon each arching jet is most enchanting, and every change of the color scheme proves more charming. One is carried back to the Paris of 1889, and again sits in the Champs de Mars in wrapt admiration of the electrical fountain of that day, and wonders if all the new revelations can be more enjoyed, or if the cup of pleasure was full at that time. That was the first thing of the kind attempted, and this far eclipses it! All the while the search lights have been traversing the heavens; now shooting far across the lake and picking out a tiny sailboat; now lighting upon the airy Diana; emblazoning the statue of the Republic and adding glory to the fountain. Bits of daylight pluck the gems of the court out of the grasp of night and bathe them in midday splendor.



PUBLIC COMFORT BUILDING.

A writer in the Los Angeles *Herald* is in ecstacy over the Court of Honor, the Peristyle, and the Lagoons, as follows:

Perhaps the most attractive part of the World's Fair grounds is that section known as the Cour d 'Honneur or Grand Plaza. In the center lies the basin, while all about, above the velvety and terraced lawns, are ranged the greatest structures of Jackson Park. Agricultural Hall and the Palace of Mechanic Arts to the south, the Manufactures, Mining and Electrical to the north, the stately golden domed Administration building to the west, while the Music Hall, Casino and Peristyle enclose the square. Broad brick and concrete walks run all around the water's edge, which is protected by heavy balustrades surmounted with urns over-running with

trailing vines and brilliant blossoms. At the end of the Grand Basin in front of the Administration building is the MacMonnies "Barge of State," the largest fountain in the world. Heralded by Fame, guided by Time and rowed by eight young female figures in allegory, with Columbia representing this proud young nation, seated far aloft, the whole idea is meant as an apotheosis to modern liberty. Rising from the lagoon at the other extreme end is the golden statue of the Republic. Though 75 feet high and the largest effigy in the world, Sculptor French has embodied it with such ease of pose, dignity and commanding presence, that, gigantic as it is, it seems perfectly in unison with its noble surroundings. Just back are seen the graceful columns of the Peristyle. This colonnade connects the Music Hall and Casino, uniting in the center in the Columbus Memorial Arch surmounted with the masterful Quadriga, while way below is one of the water entrances to the lake, under-spanning bridges and the arch. Each Corinthian column represents one of the states of the Union, while the whole is capped with a hundred statues of heroic size.

The lagoon system at the Exposition is a grand success. There is nothing so delightful and romantic as to take one of the many electric or steam launches or better still a gondola, and traverse its many miles of canals, past marble palaces and magnificent flower gardens, under arching bridges, skirting landscape, forests and stately villas. The musical dip, dip, of the quill like oars, the plash of crystal fountains, the squawking and bleating of many water fowls, and the moving panorama of international scenes makes this ride one of the features of the Fair.

More than a dozen of these slender craft have been brought from Venice with their sturdy gondoliers. Those who have seen the beautiful "Bride of the Sea" will hardly recognize in these swift flying flashes of the rainbow and rowers in fantastic garb, the black bodied gondola of the native canals and their propellers in blue jeans, white blouse and scarlet sash, which the Chicago boats are supposed to represent. But be their hue correct or no, the traveling in one is none the less enchanting. They are about thirty-five feet long, the improved style having fierce dragons rampant upon the prow, the blue, yellow, green and purple bodies ornamented with silver and gold scrolls and strange looking fishes, serpents and sea monsters. The awnings are of a corresponding color and decoration. A few are more sombre in tone, having the genuine steel prow curving comb-like high to fore and aft, and shining in the sunlight like a burnished blade of a sword. On the occasion of the fete de nuit, there is no better way of enjoying its splendor than to charter one of these and gently glide from place to piace. Many of the gondoliers have fine voices, and the mellow cadence of their dulcet love songs, accompanied by the melodious twang of the guitar or mandolin fill the air with sweet melody. On a moonlight night or in the luminious glow of electric illumination, one seems to be gliding on to an enchanted land on the rhythmical flow of song.

THE FOUR RACES. STATUARY ON AGRICULTURAL BUILDING.

CHAPTER VI.

THE EXPOSITION STATUARY.

All Is Not Gold that Glitters—Venice in the Zenith of Her Achievements was Never so Statuesque—Neither Rome nor Athens Could Point to So Many Inspiring Effigies—A Wonderful Thing is "Staff"—"Distance Lends Enchantment to the View"—Massive Statues that Resemble Marble Made from Scantling and Plaster.

N the zenith of its achievements Venice was never so statuesque as Jackson Park. Nor Rome, nor Athens in their haughtiest epochs, could point to so many inspiring effigies. The author has taken some pains to group them rather than to intersperse them in his general descriptions of the buildings thus: Administration Building—Group around the Dome: Commerce, Industry, Justice, Religion, War, Peace, Science, Art. Groups on the corner pavilions: Charity, Truth, Strength, Abundance, Tradition, Liberty, Joy, Diligence, Education, Unity, Patriotism, Theology. Single figures: Fisher Maid, Bather, Air, Diana, Harvesting, Electricity, Blacksmith, Chemistry. Groups at sides of the four entrances: Water Uncontrolled; Water, Controlled; Fire, Uncontrolled; Fire, Controlled; Air, Uncontrolled; Air, Controlled; Earth, No. 1; Earth No. 2. Interior figures: "Victory." Karl Bitter, sculptor.

Agricultural Building—Bronze statue of Diana. August St. Gaudens, sculptor. Two "Ceres" groups. Eight "Four Seasons" groups. Four Horoscope groups. Four Cattle groups. Four Horse groups. Four "Pilia," for the corner pediments. Twenty figures of "Zodiac." Sixty-eight figures "Abundance." Philip Martiny, sculptor. The "Glorification of Ceres" in the main pediment. Larkin G. Mead, Florence, Italy, sculptor.

Machinery Hall—Ten figures of "Sciences." The east pediment. Figure of "Victory," of which thirteen casts were made in copper, by W. H. Mullins, of Salem, Ohio. M. A. Waagen, sculptor. Six figures of Inventors. Figure of "Victory," of which four casts were made in copper, by W. H. Mullins, Salem, Ohio. Robert Kraus, sculptor.

Colonnade—One Cattle group. One Horse group. Four large Lions, at the base of the obelisk. M. A. Waagen, sculptor.

Music Hall, Casino and Colonnade—"Quadriga," Bull and Horse. French & Potter, sculptors. Figures: "Orator," "Indian," "Navigation," "Fisherboy," "Music." Theo. Baur, sculptor. Four groups on water gates. Bela Pratt, sculptor.

Transportation Building—Sixteen figures of Inventiors. Eight groups five bas reliefs, representing progress in transportation methods. John J. Boyle, sculptor.

Horticultural Building—Two groups Battle of Flowers, Sleep of Flowers, "Flora." Six single figures. Lorado Taft sculptor. Cupid frieze, extending all around the building.

Galleries of Fine Arts—Eight caryatides, and twelve figures of Angels. Philip Martiny, sculptor. One "Renommee" (Victory.) Eight figures of Arts and Sciences. Olin L. Warner, sculptor. Five busts of celebrated artists, by Warner, Angelo, Titian, Raphael, Rembrandt, Velasquez.

Animals for the Bridges.—Six native animals of America, modeled by Edward Kemeys. A. P. Proctor, sculptor.

Woman's Building—Pediment. "Glorification o' Woman's Work." Twelve groups, six casts each, of "Hope" and "Charity." Miss Alice Rideout, sculptor.

Statute of "Neptune" duplicated six times, on rostral columns. Johannes Gelert, sculptor.

Statute of the Republic. By Daniel C. French.

Statute of Benjamin Franklin in the south hemicycle (entrance) of Electricity building. Carl Rohl-Smith, sculptor.

The grand electric fountain in front of Administration Building. Frederick MacMonnies, sculptor.

Wisconsin Building—"Genius of Wisconsin," in marble. Miss Mears, sculptor. "Forward," a ship. Miss Miner, sculptor.

Kentucky Building—Statute of "Daniel Boone." Miss Yandell, sculptor.

Volcano Building—Statute of "Goddess of Fire." Mrs. Copp, sculptor.

Never before did distance lend so much enchantment to the view. The above seem like marble, but are only plaster and scantling. Indeed, so exquisite and matchless has been the handiwork, that were the groups marble instead of imitation they would far surpass in originality, conception of symmetry and grace, Delsartean principles, strength, beauty and character, many of the recognized masterpieces of the chiseler's skill found in European collections. Now that the Venus de Medici has been pulled from the pinnacle of perfection by the modern artists, literally been told to "come off her pedestal," all the others are open to criticism and many also suffer a downfall.

The four symbolic groups of Asia, Africa, Europe and America at the extreme corners of the Albert Memorial, in Kensington Garden, London, are looked upon as splendid typifications of each subject, but upon almost every building here can be found groups just as emblematic of the arts, electricity, sciences, agriculture, transportation, etc., as those of the London monument. But these do not come within the line of exhibits at the Fair, and their beauty is merely used as an embellishment to the buildings upon and with which they are classified.

But here it might be well to say something of the material of which they are constructed, the new and wonderful "staff." This, I believe, was first used in facing the buildings of the last Paris Exposition, and was considered at that time particularly beautiful. It has the properties of both common plaster and cement, and can be worked into any required design; in hardening it shows an ivory-like surface, which, however, can be colored in any desired tint. Thus the most ornate archi-

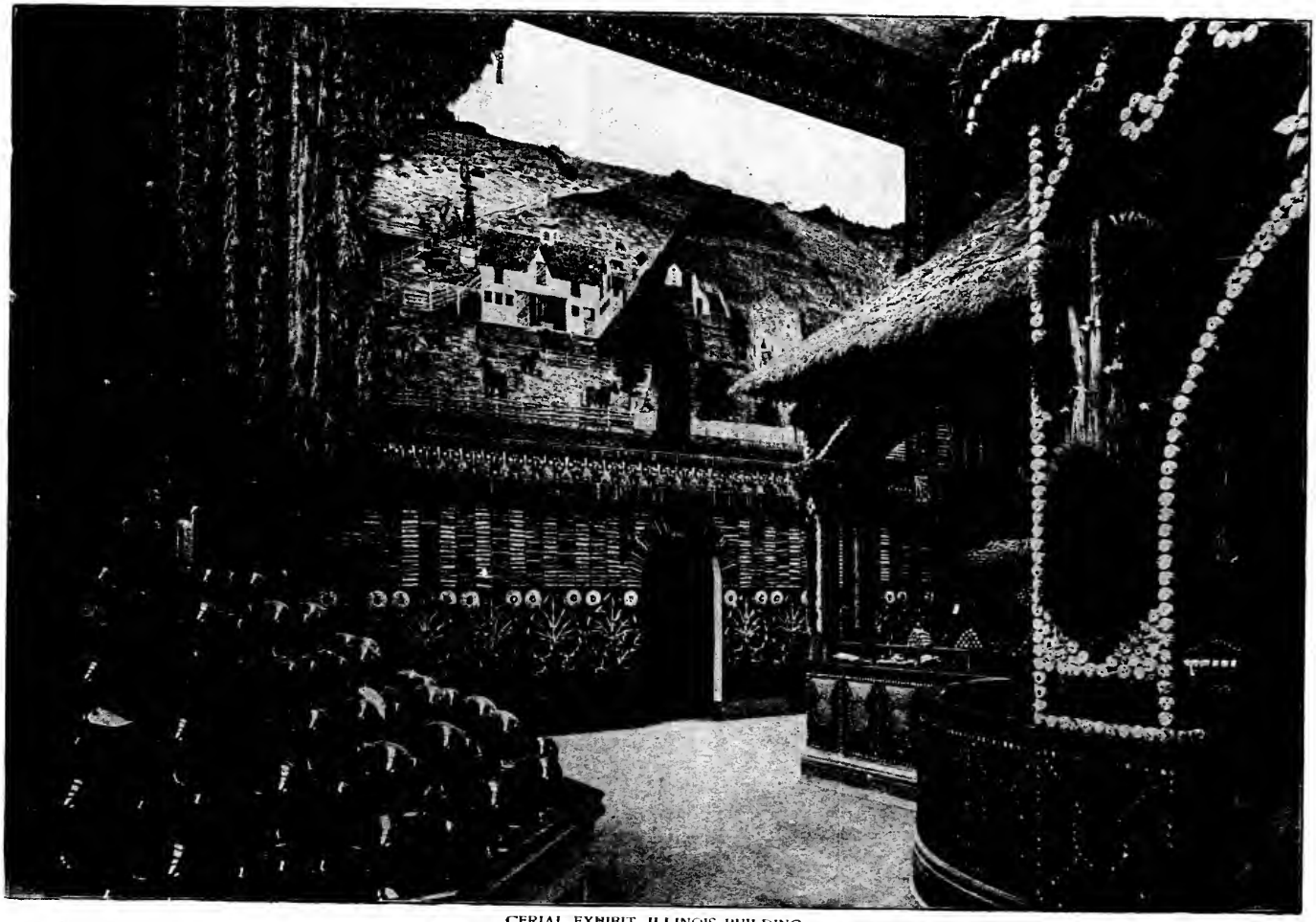
tectural effects are produced, and all the buildings, being covered with this decorative substance, present the appearance of veritable marble palaces. For the designs, etc., it is modeled into plates the required size and joined invisibly, and it is estimated that about 500,000 of these pieces have been used on the large buildings alone.

The Administration building, with its proud golden dome, being the "show house" of the Fair, is the most enriched with statuary, bas-reliefs, embossments, panels, pediments, etc. There are nearly 30 groups alone, each group consisting of a seated male or female form and a child. The smallest child of all stands nearly 12 feet, so that the relative size may be imagined. They are none too large though, as half are placed on the second stage and must be seen from a great distance. Of the thirty odd, Patriotism, Tradition, Liberty, Joy, Commerce, Art, Industry, Reflection and Abundance are particularly striking in pose and commanding in attitude. The facial expression is simply wonderful in many of the groups, and nearly all are so modeled as to readily express their titles. There are also numerous single figures here and there about this building.

The statuary at Machinery hall is all in single figures. Over the north portal six sixteen-foot female figures are seen holding shields cameoed with heads of men famous as inventors or machinists, while just above are five similar forms representing the various arts and sciences required in machinery. On the center pinnacle, the spires, and along the uppermost truss are statutes of Winged Victory holding a wreath in each outstretched hand. In fact, wreaths seem to be the chief theme in the decoration of the whole building. The arcade is richly embellished with stucco and bas relief.

Near by on the dome of Agricultural hall, St. Gauden's gilded Diana perches, twirls and pirouettes as much at home as of yore on the clock tower of Madison Square Gardens, New York. The sixty female statutes known as the zodiac figures, are placed about the exterior. Of heroic size, each holds aloft a square on which is displayed one of the 12 constellations of the almanac. Above the cornice are stationed groups of bronze oxen and noble steeds, while bold husbandmen, in commanding and masterful attitudes, follow the plow, sow and plant. The bucranium, pediments, capitals and caryatides are most appropriate to this building, as is also the mural painting.

Many of the State buildings are of "staff" and ornamented with sculpture of the highest order. Horticultural building, Mines and Mining, Transportation, Woman's building and Fisheries are all much enlivened with splendid "staff" statuary, and also the MacMonnies fountain, the statue of the republic, the Neptune columns, the Peristyle, the statue of Franklin, and the bears, lions, etc., that guard the 16 bridges spanning the lagoons.



CERIAL EXHIBIT, ILLINOIS BUILDING.

CERIAL EXHIBIT, ILLINOIS BUILDING.

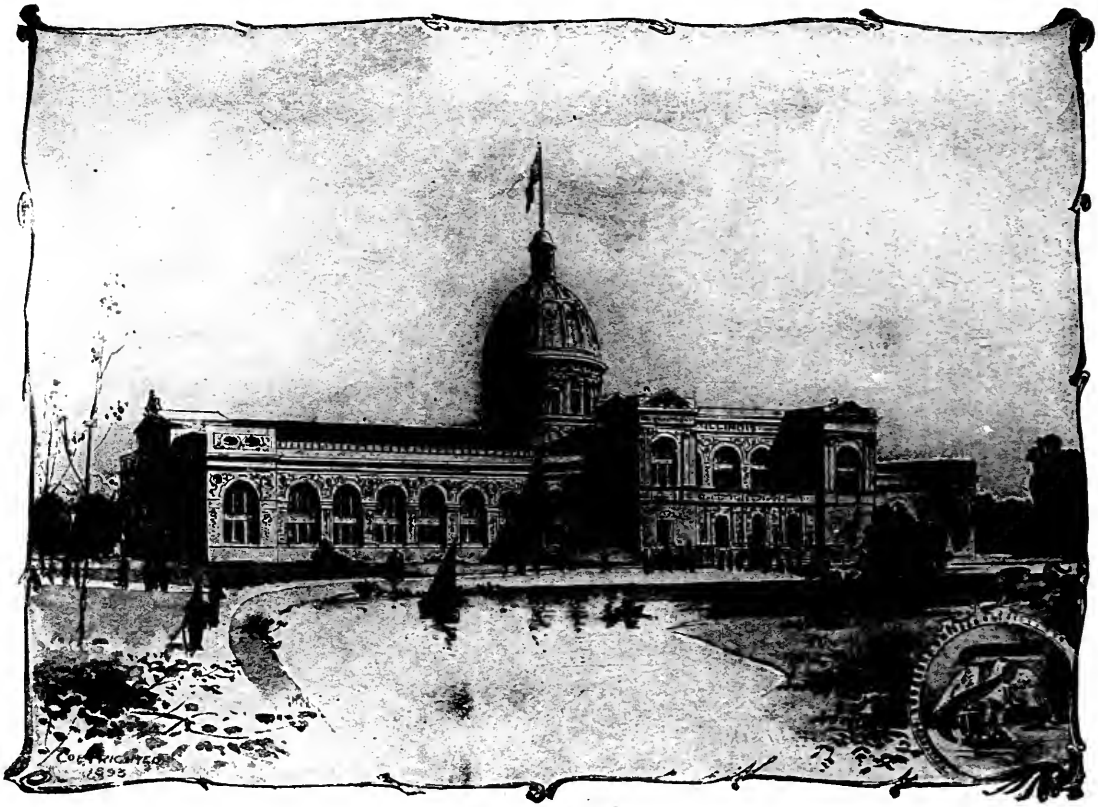
PART IX.

AMONG THE STATE BUILDINGS.

ILLINOIS BUILDING FIRST AND FOREMOST.

It Cost $230,000 and is the Largest State Structure on the Grounds—Its Admirable and Commanding Site—Its Exhibits Tell the Story of the History of Illinois in a Pictorial Way—All the Departments of the State Represented—Reception and Office Rooms for the Governor—Work Rooms of the Agricultural and Horticultural Departments—Functions of State Government Admirably Shown—Kindergarten Interests Liberally Provided For—Bureau of Information—Two Large Exhibition Rooms—Archæology and Geographical Survey—Grain Commission, Forestry and Fish Commission—Laboratory of Natural History—One-Tenth of the Building Occupied by the Illinois Woman's Exposition Board.

GROUPED at the northern end of the grounds are the State Buildings, a number of which are pretentious and all inviting. First and foremost among the State Buildings is that of Illinois; which is very proper in more ways than one—Illinois being in a sense, the host of our own nation and of all other countries. It was largely on this account that the Illinois Legislature, out of its appropriation of $800,000, directed that $230,000 should be expended on its State Building. The site chosen could not possibly have been improved upon as the view is unquestionably the finest in the Park, not excepting that from the eastern windows of the Administration Building. It stands up majestically on the northern side of the north pond, and is seen from more distinguishable points than any other structure. It is built of wood and staff, in the style of the Italian renaissance and cost $230,000. It has the form of a Greek cross, the main axis being 450 by 160 feet in size, and running east and west. The transverse axis is 175 feet wide, the southern end of it forming the main entrance. At the juncture of the two axes is a dome 72 feet in diameter and 235 feet in height. The walls are from 47 to 72 feet in height. The building is embellished with carving and statuary, and in front of its various entrances are terraces, balustrades, fountains, and flowers. The architects were W. W. Boyington & Co. The south projection is on the inside, three stories high, and is for the administration. Here are the offices and meeting rooms of the Illinois Commission and of the Illinois Woman's Exposition Board, and the offices and reception-rooms of the Governor and other State officials. The corresponding projection on the north side is thrown into one story, with galleries, and is occupied as



ILLINOIS STATE BUILDING.

a memorial hall of the soldiers and sailors of Illinois This exhibit consists largely of relics of the War of the Rebellion, such as arms, accoutrements, flags, and likenesses pertaining to the Illinois troops. The center of the building, between these projections, is inclosed by walls and arches, and forms a rotunda and promenade, with a magnificient fountain built right under the central dome. It is a massive construction of grotesque rock-work, and it is forty feet high. This fountain glows with electric lights, and moreover its water is good to drink.

The last thirty feet at the east and west ends of the main building, being somewhat higher and broader than the rest of it and separated from it by walls and arches, may be called pavilions, and are, in the interior, three stories high. In the west pavilion the third floor is devoted to dormitories, the second floor to offices, including that of a bureau of information, and the first to the offices and work-rooms of the Horticultural Department, the offices and work-rooms of the Agricultural Department, and the headquarters of the soldiers and sailors of Illinois. In the east pavilion is installed a number of interesting exhibits. The third floor is devoted to dormitories, like the west pavilion. On the second floor are the exhibits of the deaf and dumb institutions, the institutions for the feeble-minded, and the institutions for the blind. On the first floor at the south end is a model kindergarten, and at the north end a model common school. These two rooms are probably the most beautiful in the building. Between the rotunda in the center and the pavilions at each end there are two large exhibition halls, each of which is about 160 feet square and magnificently lighted, both from the roof and the sides. They are one-storied, but are traversed by two gallery aisles sixteen feet wide running east and west at a distance from the walls and connecting with the second story of the pavilions. They are devoted to maps, charts, drawings and pictures. The main floors of the great halls are bisected by a broad aisle connecting the east and west entrances. The contents of both of them are of the most interesting description.

STATUARY IN FRONT OF ILLINOIS BUILDING.

ILLINOIS STATE BUILDING.

The north half of the west hall is equally divided between State Grain Inspection, Forestry and the Fish Commission; and the south half between Horticulture and Floriculture, Archæology, and the Geographical Survey. The aisle is enlarged about midway to receive the great relic map of the State, on which fourteen engineers have been engaged for the last year. It is made on a scale of two miles to the horizontal inch and 500 feet to the vertical inch, which gives it a length of seventeen feet and a breadth of nine feet. In preparing it no less than 1,382 important errors in the current maps of Illinois were discovered. In one case it was discovered that a man had been paying the State taxes for twenty years on land that was over the Wisconsin border.

The north half of the east hall is devoted to the common school exhibit, the University of Illinois, and the State Laboratory of Natural History. The south half is divided by an aisle running east and west, and the southern half of it, on the front of the building, is given up to the Illinois Woman's Exposition Board, which, therefore, enjoys one-tenth of the space, the commission having allowed them one-tenth of the appropriation.

Their ladies' reception room is in itself an exhibit of a remarkable nature. The crowds that pass through it as soon as its existence and location is known almost preclude the possibility of using it for its proper functions. A moulded and decorated ceiling, a frieze instinct with life and color, hangings of silk, a richly carpeted floor, carved wood transoms, and chairs and lounges upholstered in gold, are included in the furnishings of the room.

Then hanging on the south wall are one hundred and twenty-five canvases representing the women artists of the Chicago Palette Club. Rare laces, embroideries, photographic work, women's inventions, carvings, inlaid articles and an interesting collection of relics of the Bonapartes, and scores of little treasures which all women love to see.

On the other side of the aisle are the exhibits of the State Experiment Station in Rural Husbandry, the Agricultural Department of the University of Illinois, and the two Normal Universities.

Secretary Reynolds of the State Commission is very proud of the character of the Illinois exhibit and the principles on which it is made up. The object which the commission kept constantly in view, he says, was to furnish a "collective departmental exhibit for the State, which should illustrate its natural resources, together with the methods employed and results accomplished by the State, through its several departments, boards, commissions, and other agencies in the work of promoting the moral, educational, and material welfare of its inhabitants, so far as such methods and results are susceptible of exhibition."

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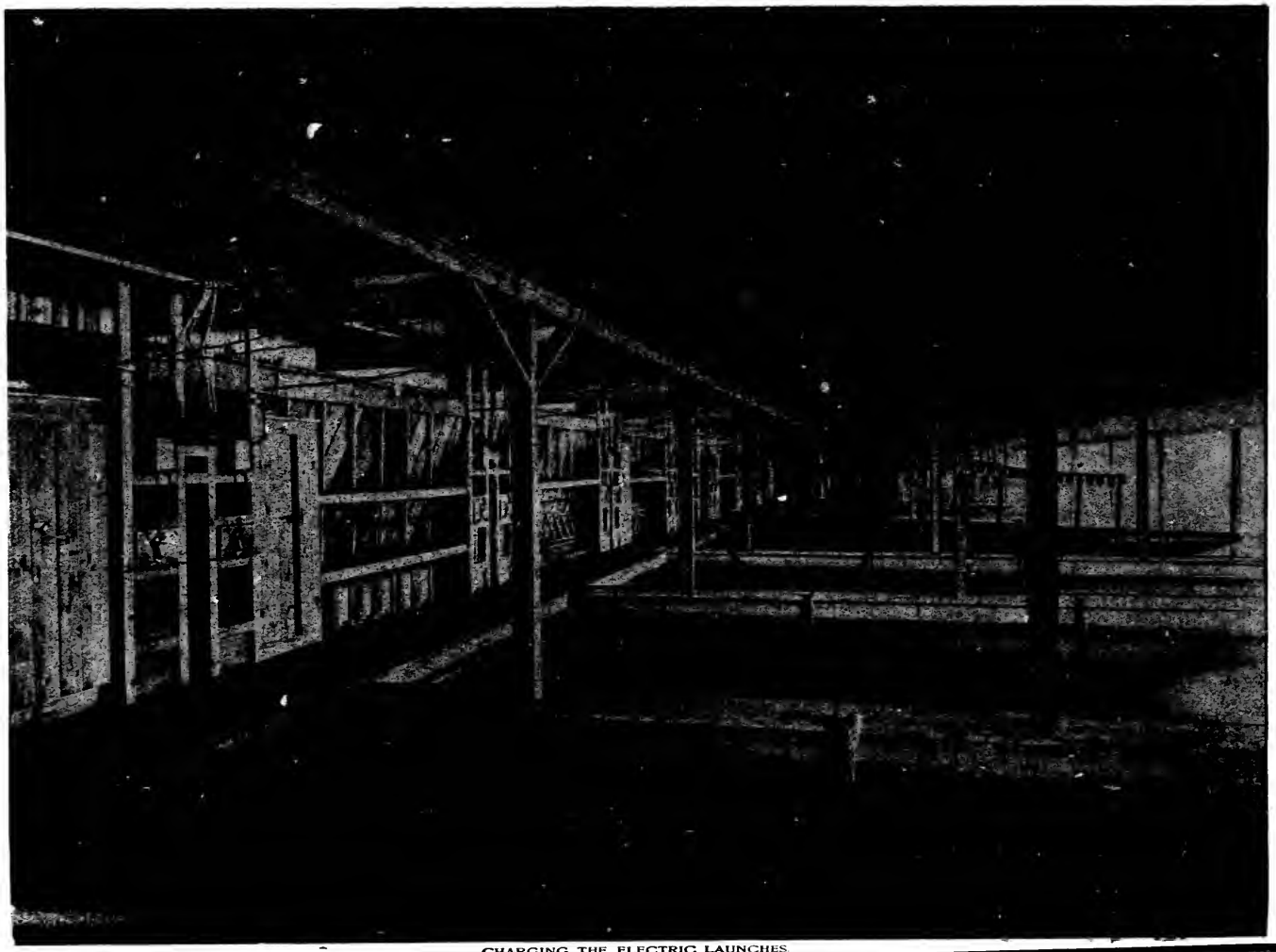


CHARGING THE ELECTRIC LAUNCHES

CHAPTER II.

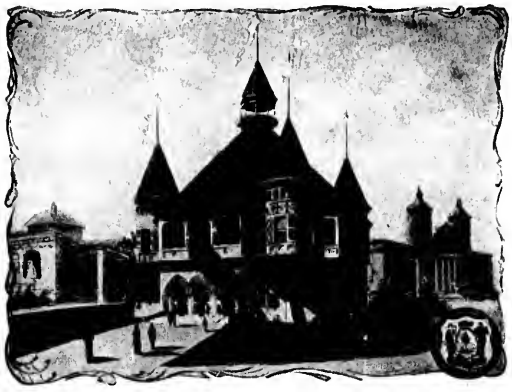
AWAY DOWN EAST.

The Good Old State of Maine—Its Latchstring Always Out—The Granite State Modestly On Top—Old John Hutchinson Still Sings—The Commonwealth that Gave Us the Hero of Ticonderoga—Massachusetts and Its Colonial Structure—Many Historic Treasures—Relics Innumerable—Little Rhody to the Front—Clams, Spindles, Prints and Corliss Engines Represented—The Connecticut State Building—Dutch Mantels, Colonial Architecture and Dormer Windows—An Abundance of Pretty Girls But No Wooden Nutmegs.

MAINE spent $20,000 on its building, and there was no time during the Fair that the latchstring of the sturdy old woodchoppers and shipbuilders did not hang out. The Maine State Building is octagonal in form, with a ground area of 65 feet square. It is two stories in height, the roof surmounted by a lantern in the center and four corner towers. The first story is of granite. The exterior finish of the rest of the building is in wood and staff. The roof is of slate. The central tower or lantern is 86 feet to its highest point. While the first story is octagonal in form, the second story presents but four sides, each with a loggia opening to the rooms within. The second-story floor overhangs the first story one foot. The main entrance of these arched doorways faces the southeast. Over it projects a boat's bow, in staff. Within the entrance is an octagonal rotunda open to the roof line, its ceiling being an ornamental colored skylight. On the first floor entrance is had to the fine parlors and reception rooms, designed for men and women, toilet rooms and two commissioners' rooms. A railed gallery extends entirely around the rotunda, which gives a complete view of the building to the visitors. The interior finishing is very handsome, being done in hardwood. The granite and roof slate used in construction, the skylight in the rotunda, and the mantels over the fireplaces are all the products of the State of Maine, and are donated by manufacturers.

New Hampshire, the birthplace of Webster, Cass, Pierce and a host of other great men, has an imitation Swiss cottage, which only cost $9,000. Its dimensions were 53x84 feet and was two-stories in height. The pitched, shingle roof is broken by five gables. The exterior is weatherboarded in stained Georgia pine above a line seven feet from the ground. This first seven-foot course is in New Hampshire granite. Each of the two stories is surrounded on all sides by a wide piazza. The rooms on the second floor open to the piazza through hinged windows open-

ing to the floor. The entrance is on the east, facing the drive on Lake Michigan. On the first floor is a reception hall, 22x36 feet. It has two unique fireplaces in pressed granite brick. To the rear of the hall is a wing of the main building, two stories high, the second story being a wide balcony or gallery to the main floor. The roof is a glass skylight. A State exhibit, a picture collection, and a large State map are shown here. Beside the reception hall on the first floor there are parlors for men and women. These rooms are ceiled, while the reception hall opens to the roof and is covered with a skylight. The second floor has a reception room and six board and committee rooms. At the dedication of its building on June 26 Governor Smith, by virtue of the transfer of a key all tied up with white and yellow ribbons, was given control of the building, and by giving the key back again to the State Commissioners he put them in charge until the Fair is over. The dedication ceremonies began at 2 o'clock. The chief retainers were the Amoskeag veterans, 100 strong. They were gay in continental uniforms of blue and white with gold epaulets, white-topped boots and swords. They were under command of Major Henry E. Burnham. These, along with the other invited guests, crowded into the assembly room of the building. The inevitable Iowa State Band, on the green outside, made music and entertained the thousand or more people who could not get in. The Rev. Franklin M. Fiske opened the dedicatory exercises with prayer, after which Captain E. M. Shaw, Executive Commissioner, introduced G. F. Page, the Commission's Vice-President, who read the address of welcome of President Amsden, that official having been unable to be present. Then Commissioner Rollins presented the building to the Governor. Old John Hutchinson then sang "The Old Granite State," and Chief Justice Wallace responded to the address of welcome. Other speeches were made by John McLane, President of the State Senate; Robert Chamberlain, Speaker of the House; Congressman H.

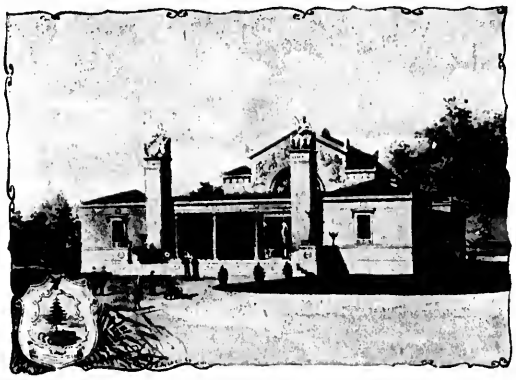


MAINE BUILDING.

NEW HAMPSHIRE.

W. Blair, Col. Frank Noyes, of the New Hampshire Columbian League; John W. Ela, Frederick Douglas and Isabella Beecher Hooker.

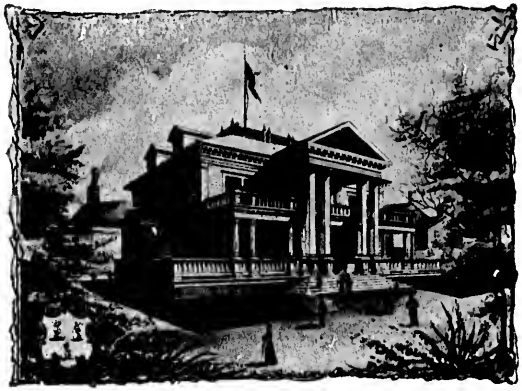
The picturesque State that gave us the hero of Ticonderoga, and that produces the best maple syrup and sugar in the world, spent $8,000 on one of the most unique and original buildings on the grounds. On the right and left of the steps on the facade rise two shafts, on which are allegorical figures representing the industries of agriculture and quarrying—the two principal industrial activities of the State. One enters through a columned portico into a courtyard, on the right and left of which are covered porches with broad seats. Just off of these are the reception rooms in front and committee rooms, postoffice, etc., in the rear. In the center of the court is a handsome marble fountain. Marble from the quarries of the State is used all through the interior of the building. Facing the end of the court is a porch, supported by four carytids, over which is a semi-circular Greek window with bas-relief around it representing "Freedom and Unity." The coat-of-arms is in the center. The reception hall, which is located in the rear, is circular in form, with a colonnade around, and a wooden dome surmounts the structure. All is colored according to a Pompeiian scheme. The building is Pompeiian in style and of classic detail, and furnishes a most unique contrast to the other buildings. The commonwealth of Massachusetts, at an expense of $50,000, has copied for its State building the old John Hancock residence of Boston. This historical structure is really the only one on the grounds which can be called strictly Colonial in all its aspects. The building is three stories high, with gable roof, surmounted in the center by a cupola. The exterior is of staff, in imitation of cut granite, and it follows the lines of the old house sufficiently faithfully to recall the original to the minds of those who have seen it. Like the original, it is surrounded by a terrace, raised above the street, and



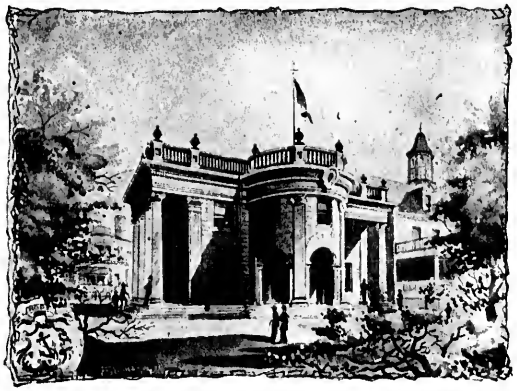
VERMONT BUILDING.

MASSACHUSETTS BUILDING.

has in front and on one side a fore-court, filled with old-fashioned flowers and foliage, in keeping with the character of the building. It is approached by two flights of steps—one leading from the street to the terrace, the other from the court to the house The main entrance opens to a spacious, well-studded hallway with a tiled floor. Facing the entrance is a broad Colonial staircase, leading to the second floor. An old-fashioned, bull's-eye window gives light to the stairway, which is guarded by a grandfather's clock. On the right of the hall is a large room, constituting a registration room, postoffice and general reception room. The fittings and furnishings of this room are unique. Its marble floor, its tiled walls, its uncovered beams, its encircling wooden seats and its high mantel recall the old Dutch rooms found in western Massachusetts, as well as in New York and Pennsylvania. On the left of the front door or main entrance are two large parlors, which, when thrown together, form a room 80x25 feet in size. The front parlor is furnished by the Essex Institute of Salem, an old historical society. The back parlor is more especially a reading room for men. The second floor is given over almost entirely to the use of women. There is a large and a smaller parlor, and two bedrooms for the use of the Woman's Board. The entire floor is furnished in old-fashioned furniture, and in the bedrooms are four-post bedsteads. On the third floor are rooms for servants. A liberty pole 85 feet high stands in the fore-court and a gilded cod fish serves as a vane on the top of the cupola. Many relics are to be found in the Massasschusetts building which possess great historical interest. Among the most valuable of these relics is a fragment of the original "Liberty" tree flag, looped in the center by General Brooks' revolutionary hat, with crossed guns below, quaint



CONNECTICUT BUILDING.



RHODE ISLAND BUILDING.

long-stocked old weapons, one the gun that shot May Pitcairn, and beneath, a pontoon that was used in the battle of Bunker Hill.

Among the historic treasures is the Governor Wolcott tankard loaned by Lieutenant Governor Wolcott· also portraits of ancestors of the Wolcotts; a painting by Copley of members of Governor Gore's family, loaned by the Misses Robins, of Boston; an old mirror with beautifully carved frame; a quaint little book published and sold in 1740 in Philadelphia by "B. Franklin;" a sword worn by Judge Hatton, of Salem; a bed-quilt made of pieces of Lady Washington's dresses, and many quaint articles of dress, big bonnets, high-heeled shoes, shawls and broidered gowns.

Then there is a cradle in which has been rocked five generations of the Adams family, which furnished the second and sixth Presidents of the United States; an old piano and rare china; a mirror in which Governor Hutchinson surveyed himself more than 150 years ago; a desk used by George Washington when he made his headquarters at Cambridge, and the portraits of sixty men and women who aided in making Massachusetts famous in its earliest days. Everything goes to tell the history of the old bay State.

Noted for its spindles and prints, and for its clams and fish dinners, and for its educational facilities and two capitals (on account of its size) little Rhode Island came early to the front with a $7,000 building. The State that gave us Roger Williams, Tristam Burgess, Senator Anthony, the Corliss engine, the Arcade, and the Queen of American Watering Places, saw to it that it should be embosomed among other pretentious commonwealths. It may be possible to walk around the State before breakfast, but it is always to the front in peace or war. There is Greek manner, Ionic columns and entablature, and American breeziness in the Rhode Island building. It has ground area of 32x59 feet; it is two stories high, in wood and staff, in imitation of granite. Entrance is had to the building from all sides through French windows opening to the floor. The main hall is 18x25 feet, and is open in the roof. The parlor for women and the secretary's office are on the first floor. On the second floor are two committee rooms and a gallery around the main hall. The Governor's room occupies what may be called the second story of the porch on the west front. All the floors are hard wood, and the interior is furnished in cypress.

The Connecticut State building, which cost $12,500, is in the Colonial style, being a type of the Connecticut residence, with the addition of circular windows on the north and south, and a circular piazza on the rear. It has a ground area of 72x73 feet, including the piazza, and is two stories high. The exterior is weatherboarded and painted white. The roof contains five dormer windows and is decked on top. The deck is surrounded by a balustrade, and from its center rises a flagstaff. The main entrance is off a square porch, covered by the projecting pediment, which is supported by heavy columns. The interior is finished in Colonial style, with tiled floors, paneled walls and Dutch mantels. The plumbing and carpenter's hardware in the building are in special designs, and are donated as exhibits by Connecticut manufacturers. On the first floor is a reception hall, 21x48

feet, with a light-well in the center. In the rear of the hall is a stairway with a landing half-way up. Flanking the hall are parlors for men and women. The second floor is divided up into living rooms, and is occupied by the Executive World's Fair officer of Connecticut, and his family during the Fair. There are many fine paintings and revolutionary relics on exhibit, and pretty girls were abundant during the whole Fair. There seemed to be everything but wooden nutmegs.

THE OLD FARM HOUSE.

CHAPTER III.

A GALAXY OF STATES.

New York, New Jersey, Pennsylvania and Delaware—Stateliness of the Building of the Empire State—Money Liberally Expended on Wall, Ceiling, Floor, Vestibule, Arch, Column and Balustrade—The Pennsylvania Building—Many Prefer It To Any in the Group—A Very Beautiful Structure Throughout—New Jersey Reproduces the Washington Headquarters at Morristown—A Revolutionary Flavor and No Mistake—Delaware, Which Raised the First Money for the Exposition, Has a Picturesque Building.

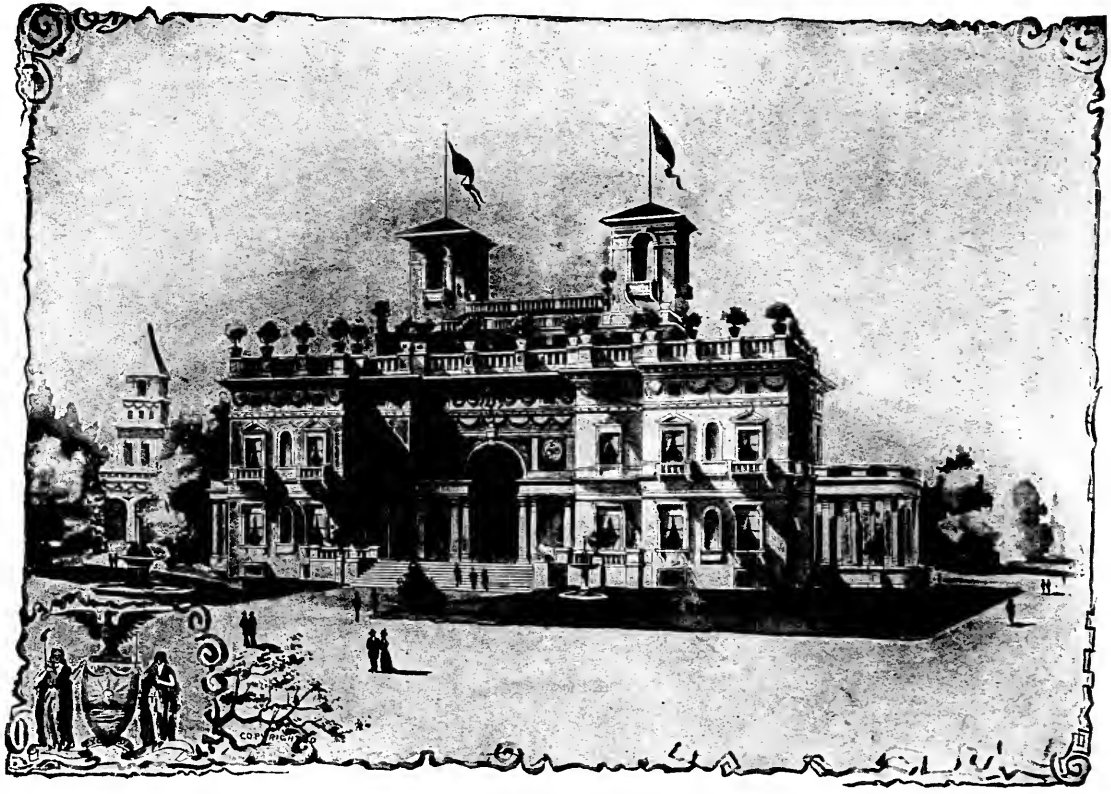
NEW York is fully justified in the pride she takes in her building. Not only is it the third in size—ranking next to California—but the Knickerbockers claim it occupies the finest location in the group, being on two main boulevards and just north of the Art Palace. The architectural idea in this building is that of a huge summer house, or villa in character, rectangular in form and in the style of the Italian renaissance. It is three stories high, being fifty-seven feet from the ground to the cornice. The general dimensions are 160 feet front by 105 deep. The exterior is in staff, in imitation of marble, and in keeping with the style of the main exposition buildings. Its decked roof is surmounted and confined by a heavy balustrade. Each pedestal of the balustrade supports a large Italian vase, in which grows a bay tree, giving the building, together with its blue and white awnings and other characteristics, the air of a Pompeiian house.

The flat-decked roof furnishes a promenade and summer garden. From its center rises a clerestory over the banquet hall, and above the clerestory are two belvideres from which a magnificient view of the lake and surroundings is obtained.

On the east and west are semi-circular porticos having a diameter of fifty feet; here twin fountains add their music to the band within.

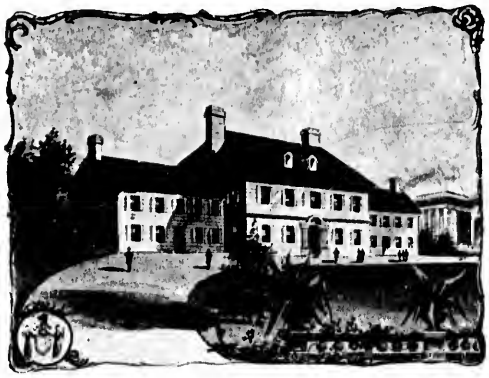
A broad flight of steps, on the south, guarded by Barbarini, which were cast in Rome, leads to the main entrance. About this entrance is concentrated all the exterior ornamentation of the building. In the circular niches, on either side of the arch of the entrance, are busts of Hudson and Columbus. Above the keystone of the arch is the American eagle, and dependent from a staff, projecting above the bird, is a flag bearing the State's arms.

The barreled arched vestibule, forming the entrance to the building, opens to a columned hall, 56x80 feet in size, with a domed ceiling 45 feet from the floor.



NEW YORK STATE BUILDING.

From this reception room entrance is had to all the rooms on the floor. In the rear a grand ten-foot staircase leads to the second floor. Along the walls are pictures in Pompeiian colorings and stately mimic jonquils rise from each step. Here is the banquet hall 46x80 feet, highly ornamented in staff, its groined ceiling 45 feet from the floor. It is most sumptuous in style, far surpassing many of the famous banqueting rooms famous in history. Depending from the ceiling are two crystal electroliers, 18 feet long, forming great clusters of incandescent lights. The electric lighting throughout the building is such as to cause much comment; the seal of the State is even shown in electric splendor. Three balconied boxes extend along the southern length of the hall, for the use of the governor or any other distinguished guest who might prefer to look on rather than participate. It is upholstered, draped and furnished in a rich red tone, harmonizing exquisitely with the soft cream and gold of the splendid salon. On the first floor are parlors and toilet rooms for men and women, post-office, information and baggage rooms. On either end of the banquet hall, on the second floor, are the committee, reception and tea rooms. The third floor is devoted to bedrooms, kitchens, and servants' rooms. In this temple, builded by the Empire State, which cost $150,000, her loyal citizens receive and entertain distinguished foreign guests in lavish style and dispense hospitality after the principles maintained as being "royally correct." A plain little house painted white, with vines trailing down the front of it and a patch of ground broken here and there by picturesque flower beds in front of it, may be seen at the southern part of the grounds. The house, which was erected under the auspices of the New York State Board of Commissioners, is intended to illustrate a model abode for the average workingman. It was first projected by Professor Lucy Salmon, of Vassar College, whose ideas have been carried out by Miss Katherine B. Davis, of Rochester. Miss Davis is a graduate of Vassar, and has taken a



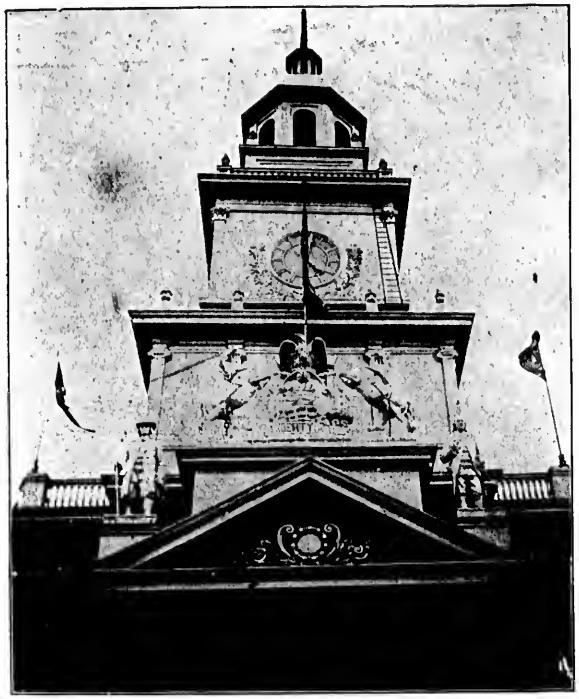
NEW JERSEY BUILDING.

DELAWARE BUILDING.

NEW YORK STATE BUILDING.

PENNSYLVANIA STATE BUILDING.

great deal of interest in the welfare of the workingman. The model house is a frame building on piles, with an elevation of a story and a half and covering a lot 26 by 28 feet. On the first floor is a kitchen, a living-room and a bath room. The second floor has two large rooms and one small one. The interior walls are all painted and the ceilings can be washed with cold water. Wall papers are eschewed as possibly dangerous to health. The house cost $1,000, and the furnishings $300. Pennsylvania has erected a building which takes the mind back to the times when Philadelphia was the center of American struggle for liberty. Barring the two balconies which run completely around the building, it is an exact reproduction of old Independence hall, having its entrances, bell tower and spire. The building is rectangular in form, two stories high, with a ground area of 110 by 166 feet. The corners of the front are quarter-circled in. Piazzas twenty feet wide surround the building, and over them are verandas with protecting balustrade. Outside stair-cases right and left to the rear, lead to the garden on the roof. This roof is covered with American made tin produced in Philadelphia. The outer walls to the roof-line are of Philadelphia pressed brick. Above the main entrance is the coat-of-arms of the State, in bas-relief, the horses on either side of it being life-size; and to right and left heroic statues of Penn and Franklin. The front is further ornamented with two allegorical groups of statuary, one emblematic of the arts and sciences, the other of mines and manufacture.

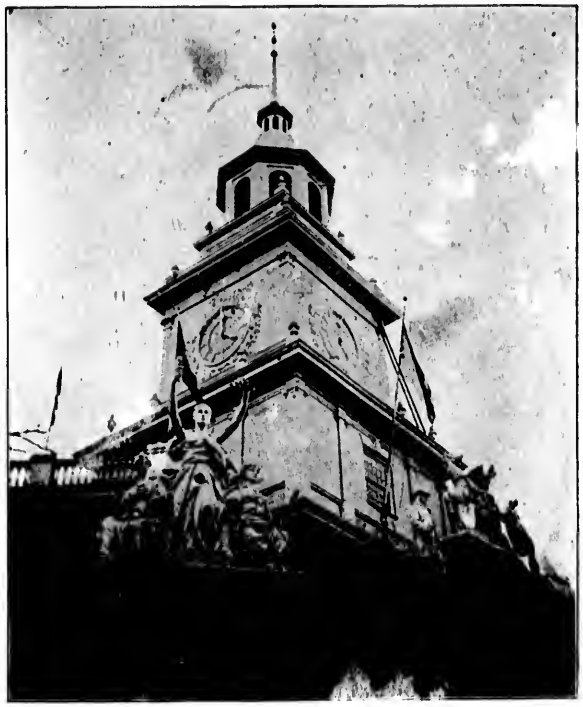


STATUARY ON DOME OF PENNSYLVANIA BUILDING.

The rotunda is finished in tile and slate, like the old hall, and runs through the building and far up into the clock tower, where it ends in a dome, richly frescoed and brilliantly lighted by electric lamps sunk in the ceiling. Under this dome the famous Liberty bell may be seen, on a platform on wheels, so that in case of fire the valuable relic can be run out of harm's way at once.

PENNSYLVANIA STATE BUILDING.

About the rotunda on the first floor are post office, package rooms, bureau of information, exhibit rooms and reception rooms for both men and women; the men's sanctuary is finished in maple, while the woman's is in oak, the others being of native marble and hardwoods from the Keystone State with wainscoted walls, heavy cornices and handsome frescoes. The woman's parlor is covered with a cloth of gold carpet made in Paris especially for this triangular-shaped room. The frescoes are of pale Nile green and the walls are covered with large paintings of a character in keeping with the purpose of the room. Some of the paintings have taken honors in competition, and all save one have been painted by Pennsylvania women. The exception is a rare curio. It is a portrait in oil of William Penn, painted by Joshua Richardson some time during the period from 1684 to 1699, while the famous Quaker was on a visit to England. On the second floor are rooms for the governor, the press correspondents, the treasurer of the commission and the board of commissioners. The apartment designed for Governor Pattison's use is very plainly but richly furnished, the prevailing color being a deep maroon. It is triangular in shape and the walls are unadorned except for the bright red frieze which gives it color. There are also three bedrooms in the tower. In a glass case in the rotunda are shown some very interesting relics. Besides many revolutionary relics, there is the original charter granted to Penn and his treaty with the Indians, which is signed by the aborigines in their peculiar sign manuals. The signatures are made by dipping the thumb in some highly colored fluid and spreading the impression on the treaty. The building is supplied with 800 electric lights; the staircases are of quartered oak, all the ceilings of stamped metal, and the whole structure cost the Pennsylvania Legislature $90,000.



STATUARY ON DOME OF PENNSYLVANIA BUILDING.

The general style of the New Jersey building is colonial, and it cost $19,000. The building is principally of frame construction, covered with clapboards and with some of the ornamental portions in staff. The roof is shingled. The dimensions of the main building are 51 feet long, 31 feet deep and 37 feet high to the ridge. Each wing is 16 feet front, 21 feet deep and 30 feet high. The piazzas, in front and rear, are each 68 feet long by 16 feet wide (at the widest part). The area covered, including piazzas, is 3,949 square feet. The site of the building is centrally located among those of the States of New York, Massachusetts, Rhode Island and Connecticut. It is not intended for exhibition purposes, but is more in the nature of a club-house for the use and convenience of all Jersey people. There are large and inviting piazzas on the front and rear. The main entrance opens into a large general assembly hall, two stories high with a circular balcony looking down from the second story. This hall contains the postoffice and the hat and cloak counters a large open fire-place, nearly ten feet across, and the main staircase, this latter being made a feature of the design. On the right hand side of the building are located the rooms set apart especially for the ladies; these consist of the general meeting room of the Ladies' Board of Managers, two parlors on the second floor, with lavatories and bath-rooms. On the left hand side of the building are the rooms set apart for gentlemen, the secretary's office, board room, president's room, committee rooms and lavatories. In the third story are the care-takers' apartments and store-rooms for documents, etc.

Those familiar with the appearance of the Washington headquarters at Morristown, N. J., will recognize in New Jersey's building the nucleus of the general lines and details of that historic structure. The interest of the Morristown building is no doubt somewhat shared in by the New Jersey building, and it seems that the State has done well in selecting the old headquarters as a starting point for the design, when it is remembered that under the roof of the old Morristown house more of the noted characters of the Revolution have gathered than under any roof in America. General Washington made the building his headquarters during the winter of 1779 and '80, and Alexander Hamilton lived there during the same long winter, and there "he met and courted the lady he afterward married, the daughter of General Schuyler." Celebrated men, including Green, Knox, Lafayette, Steuben, Kosciusko, Schuyler, "Light Horse" Harry Lee, old Israel Putnam, "Mad Anthony" Wayne, and "that brave soldier but rank traitor, Benedict Arnold," have all been beneath its roof. This building is used as the headquarters of New Jersey commissioners, and is a place where every New Jerseyman and his family is made to feel at home, where he can meet his friends, can register his address and receive his letters. It is, in fact, a part of his own State transported to the Exposition grounds.

It may not be generally known that the little Southern State of Deleware, beyond being the producer of many distinguished statesmen and the best preacher and the best war vessels in the world, sent more Union soldiers to the field than any other state according to its population. It was the first state to raise money for the Exposition, and it spent $7,500 on its building, which is constructed wholly

of native woods and materials from the State, is 58x60 feet, extremely picturesque and elaborately furnished. One room in the building is finished in Colonial style, with hangings and furnitute representing the Coloniai days. It is very interesting, there being figures in clay of the old Swedes' Church at Wilmington, Barratt's Chapel, and Christ Church. Christ Church was built more than 100 years ago of heart pine. It is without a particle of paint and has the high backed pews, the chancel at one end, the servants' gallery at the opposite end, midway on the east side the lofty pulpit, and immediately below the reading desk ard the clerk's desk.

ON THE JERSEY SHORE.

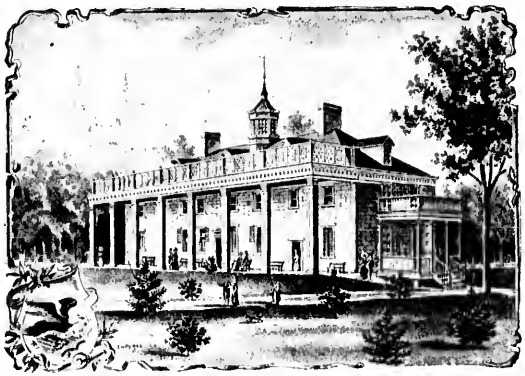
CHAPTER IV.

VIRGINIA, THE MOTHER OF PRESIDENTS.

Mount Vernon Reproduced—One of the Most Interesting Collections of Choice Relics on the Grounds—West Virginia and Maryland Near By—Much That Is Colonial Seen in These Buildings—Old Portraits, Flint Guns, Cockades and Continentals—West Virginia.

THE State of Virginia is the mother of Presidents—so every school-child is taught. To be sure, Massachusetts has given the country two, the Adamses; Tennessee three, the hero of New Orleans being among them; New York four, Van Buren, Fillmore, Arthur and Cleveland; Ohio has given us two good soldiers and statesmen, Garfield and Hayes; Indiana two, the hero of Tippecanoe and his grandson, a noble soldier of the civil war, and one of the most eloquent orators that has ever lived; Illinois two—mention their names profoundly—Lincoln and Grant—great in peace and great in war; Louisiana and New Hampshire one each. But Virginia has given us five—Washington, Jefferson, Madison, Monroe and Tyler. This State is not only the mother of Presidents—Randolph, Scott, Preston, the Lees, Custis, Thomas, Stonewall Jackson and a hundred other illustrious Americans were Virginians. At a cost of about $19,000 this grand old State reproduced Mount Vernon as its building. It covers an area of 175x185 feet, and lies near the lake and opposite the Maryland building. The structure is an exact representation of the Mount Vernon mansion in Fairfax county, Virginia, near Washington city, the building in which George Washington lived and died. It got into his hands from his brother, Lawrence Washington, and was built in the early part of the last century by his father. The main building is 94x32 feet, two stories and an attic and a two-story portico, with large columns extending along the whole front, being 94 feet long, 13 feet high and 14 feet wide. The portico extends up to the cornice of the roof, has an ornamental railing around the top and is furnished with settees along the whole length next the wall. There are two colonnades running back from each wing of the building to the rear about 20 feet long, 9½ feet wide and 11 feet high, connected each with a one-and-a-half story structure, 40x20 feet. These are called the dependencies. Altogether there are twenty-five rooms in the structure. On the first and second floors of the main building there are eleven rooms, in the attic six, and in each of the dependencies four rooms. The largest rooms in the house are the banquet hall, 31x23 feet, and the library 16x19 feet, the main entrance hall, Washington's chamber, in which he died, upon the second floor, and Mrs. Washington's chamber in the attic, to

which she removed after her husband's death, and which she occupied during the remainder of her life on account of its being the only room in the house which looked out upon his tomb. The apartments average upon the first floor 17x17 feet, upon the second 17x13 feet. The height of the first story is 10 feet 9 inches; of the second, 7 feet 11 inches; of the attic, 6 feet 9 inches. The distance from the ground to the top of the cupola is 50 feet. In the main hall is a large stairway four feet wide, ascending by platforms to the floors above. On the first platform of the stairway there is an old Washington family clock, a very interesting historical relic. This hall is furnished with antique sofas and pictures of the last century. The rooms upon the first floor are ornamented by heavy carved and molded wood trimmings and handsome mantels, very antique. This Virginia building is not only an exact representation in every particular of the old Mount Vernon structure, but everything within it is also of the same character. Nothing modern is seen in the building, except the people and the library of books by exclusively Virginia authors. As far as could be done the building was furnished with articles which were collected from all over the State, the heirlooms of old Virginia families, and with portraits of the same character. Whatever may be lacking in furnishing the building with articles of this character is supplied with furniture made after the same old fashion. The building is presided over by the Lady Assistant of the Virginia Board, Mrs. Lucy Preston Beale, a daughter of Hon. Ballard Preston and a granddaughter to General Preston, a former Governor of Virginia. She has for the attendants in the building old Virginia negroes, and undertakes to represent in every particular an old Virginia home of the Colonial period. There is a very rare collection of relics of Colonial times and of the Revolutionary War, and everything which is antique, among which



VIRGINIA BUILDING.

WEST VIRGINIA BUILDING.

is exhibited a copy of the original will of George Washington. The library is furnished entirely with books written by Virginians or relating to Virginia, quite a large collection of which has been made, and ornamented with old Virginia portraits, views and other relics of the Colonial period and the last century. Altogether the building with its furnishings is unequaled in its character and appointments, and nothing like it will be found elsewhere except at Mount Vernon itself.

West Virginia, which many old Virginians still claim as part of the old State,

RELICS OF GEORGE WASHINGTON.

and which slid away from the more southern element in 1862, has an attractive building in a strictly Colonial style, which cost $20,000. It is two stories high, with a pitched roof, the outer walls being weatherboarded and painted. The roof is shingled. The interior is finished in hard wood, the walls are plastered, and the ceilings are of ornamental iron work from Wheeling. All of the exposed material in the building is the product of the State. The main entrance is on the west, on a platform porch. Above the entrance is the coat-of-arms of the State in bas-relief. Within the entrance is a vestibule, with rooms for the boards of commissioners on either side. Beyond the vestibule is a large reception hall flanked by parlors

for women and men. Back of these parlors are toilet and retiring rooms. On the second floor front are two committee rooms, and the balance of the floor constitutes an assembly room and reception hall 34x76 feet in size. There are four large fireplaces in the building; two on each floor, with very handsome carved wood mantels. The building has a ground area of 58x123 feet.

West Virginia to the schoolboy is a pale blue triangle lying on the eastern portion of the map of the United States, and often causing him extraordinary and acute anguish to define its boundaries. To the average man, "grown and bearded," it is a place that coal comes from, or a winter health resort, or sometimes a bit of rough country which the cars whirl him through. But to the West Virgianian it is the noblest work of nature.

Some hundreds of West Virginians got together at their beautiful State building on the 20th of June and explained this to each other at some length. Incidentally they dedicated the building, but the bulk of the time was spent in the enjoyment of wood pictures descriptive of their Virginian elisium, and an occasional friendly lament that Chicago, with all its other glories, could not have had the added advantage of being located in West Virginia.

The felicitations—exercises seems too cold a word—were held in the large assembly room on the second floor, a spacious, cool apartment with big windows opening to the floor, with splendid hardwood wainscoting running about its walls and a magnificent carved mantel at one end. It was handsomely decorated with bannerettes and palms, and presented a most attractive appearance.

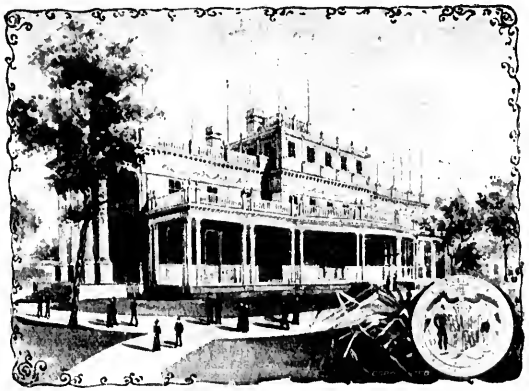
As one of the speakers said, the West Virginia building is typical of the State, and all the wood and metal work used so profusely in decorating the interior are its own products, and nowhere outside the Forestry building is there such a superb and comprehensive display of American hard woods. State Commissioner Chancellor made the opening address welcoming the guests and presenting the regrets of the Governor of West Virginia that he was unable to be present. Commissioner Chancellor read a telegram from the Governor requesting him to call upon some typical West Virginian to act as substitute for him. In obedience to which request Mr. Chancellor summoned United States Commissioner St. Clair to take the place of the absent Governor.

General St. Clair arose and in his easy, self-possessed manner announced that it was with deep embarrassment that he responded to such a call. His remarks were crisp and pointed, and often almost startling—as for instance, when he said that the people of West Virginia and the people of the United States were indebted largely to West Virginia for the success of the Fair, which he explained by stating that it was the second coal-producing State and the seventh hardwood State in the Union.

He dwelt long on the various natural resources of his native State, and gave numerous figures showing the remarkable progress it had made since the war. In conclusion he pointed to the fact that the State building was not intended as a place for exhibits, but as a resting place and home not only for West Virginians

but for everybody who cared to accept its hospitality. And to the use and benefit of everybody he, therefore, dedicated it.

The Maryland building, which cost about $12,000, is near the lake and very properly opposite the Virginia building. It is a handsome structure and is divided into reception hall, ladies' toilet, ladies' parlor, exhibition hall, woman's department, bureau of information and main exhibition hall, beside spacious porches on the first floor. Gentlemen's toilet, office, smoking room, reading room and three parlors which communicate, constitute the second floor, and a gallery overlooking the main exhibition hall, is entered from this floor. The flat deck roofs of porches and buildings offer fine points of vantage for overlooking the grounds of the World's Fair.



MARYLAND BUILDING.

GROUP OF PRESIDENTS OF STATE BOARDS.

1. La Fayette Funk, *Illinois.*
2. S. P. Behan, *Arizona.*
3. J. O. Crosby, *Iowa.*
4. J. B. Smith, *Delaware.*
5. D. O. Monfort, *Minnesota.*
6. A. J. Seay, *Oklahoma.*
7. H. B. Andrews, *Texas.*
8. Prof. Andrews, *Rhode Island.*
9. M. W. Cobun, *Kansas.*
10. W. W. Peabody, *Ohio.*
11. C. H. Amsden, *New Hampshire.*
12. Chauncey M. Depew, *New York.*
13. E. B. Smalley, *Vermont.*
14. Jno. S. Harper, *Wyoming.*
15. I. M. Scott, *California.*

CHAPTER V.

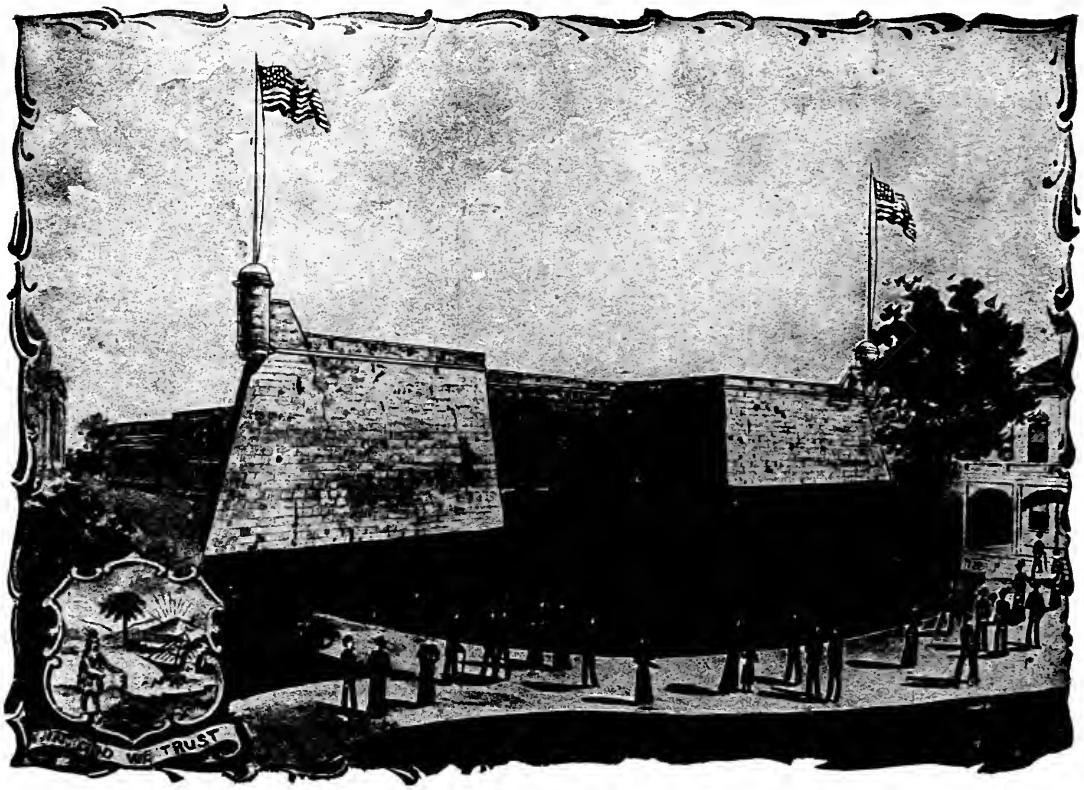
'WAY DOWN SOUF 'MONG DE FIELDS OF COTTON.

The Governors of North and South Carolina Are Not In It—Georgia, Alabama, Mississippi and Tennessee Also Have No State Buildings—Florida Reproduces Fort Marion—Louisiana has a Beautiful Building—All its Governors for One Hundred Years Present—The Woman's World's Fair Exhibit Association of Texas Erect a Handsome Building for the Lone Star State.

ORTH Carolina has no building, but the State makes collective exhibits in the Agricultural, Horticultural, Mines, Fisheries and Forestry departments. The South Carolina Legislature voted adversely on the question of making an appropriation, therefore that State has no building nor State Board of Commissioners. The same may be said of Georgia. Alabama has no State Board of Commissioners nor a building, the Legislature having failed to make an appropriation. Some funds were raised in the State, however, pending the action of the Legislature on the World's Fair Bill, but it was not a sufficient amount with which to erect a creditable building and the movement was abandoned. The Mississippi Legislature refused to pass an appropriation bill, hence that State has no building nor State Board of Commissioners.

The Tennessee Legislature failed to make an appropriation, hence there is no State Board of Commissioners nor State building. The mining town of Harriman makes an exhibit in the Mines building, but otherwise there is no collective exhibit shown.

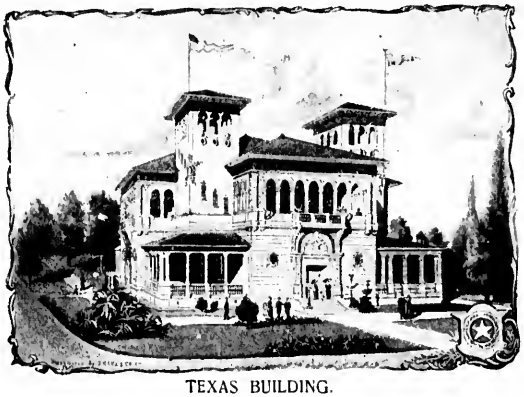
At a cost of $20,000, Florida reproduces Fort Marion, St. Augustine, which has been a great attraction. The original fort covers an area of one acre, and is, perhaps, the oldest structure in North America, the most interesting specimen of Spanish supremacy in this country, and the only example of mediæval fortification on the continent. Its erection was begun in 1620, and continued for 100 years. To equip it as a garrison, required 100 guns and 1,000 men. It was never taken by a besieging force. The State building occupies one-fifth of the space of Fort Marion. It is in the form of a four-bastioned fortress. Including the moat, the site is 155 feet square. The building proper is 137 feet square. The frame is of pine, covered with plasture and coquina shells, in imitation of the original. The interior is divided into parlors for men and women, committee and exhibit rooms, and is furnished in Florida's native woods. The interior court is planted in bamboo, orange, lemon and other tropical trees. The ramparts furnish space for promenades and



FLORIDA STATE BUILDING.

hanging gardens. In the moat is a sunken garden, where are produced minature fields of cotton, sugar, rice, tobacco, etc.; showing the natural resources of the state. In visiting this building one feels that he is in St. Augustine, or Palatka, or Magnolia, among oranges and cocoanuts and alligators and pelicans, and among trees and mosses many hundreds of years old. The Louisiana structure is an exact counterpart of the well-to-do creole buildings that may be seen anywhere from Baton Rouge down. It is built with an eye to crevasses and high temperatures, is two stories high, with piazzas, and has a decidedly Southern air. It is truly Southern, and there are latchstrings on every door. Pictures of all the governors for a hundred years are on all the walls, and there are plants without and within that suggest the prodigality of the soil. An hour in the Louisiana building gives one a lasting idea of Andrew Jackson and Louis Phillipe, and he learns much of one of the most celebrated chess players, one of the most eminent pianists, and one of the most enjoyable novelists of modern times. The building cost less than $18,000 and shows off well for the amount expended. It has a frontage of 66 feet and a depth of 56 feet. The first story is 14 feet in the clear, second story 13 feet. The building is finished in natural woods—principally cypress and white pine. The interior contains on the ground floor a large hall, off which is ranged reception rooms, dining room and smoking room. The second story contains a large exhibition room which communicates with smaller exhibition rooms and ladies' parlor. Retiring rooms and lavatories have been provided on both floors. In connection with the State building is a Creole kitchen where the famous palatable cookery prepared in Creole fashion is served. The 10th of August was a famous day for Louisianians—the Director-General was present of course, as he married one of the belles of New Orleans.

LOUISIANA BUILDING.



TEXAS BUILDING.

FLORIDA STATE BUILDING.

At a cost of raising $30,000 Texas has erected a handsome building on the right of the north entrance to the Exposition grounds, and this notwithstanding the failure of the State Legislature to make an appropriation on account of constitutional prohibition. The money for the structure was raised by the Women's Fair Exhibit Association of Texas, with headquarters at Austin, the State capital. In the treatment of the design of the Texas building the architect has not deflected from the history of the Lone Star State, which, from its foundation, has been marked by a Spanish tinge, whose architectural inclination and handsome botanical effects lay down a chain of thought far too beautiful to be forsaken for that of the present day; therefore, the building was designed for colonnades, grounds, fountains foliage, etc. It contains an assembly room 56 feet square, 28 feet high, provided with art glass skylight in the ceiling, with a mosaic Texas star in the center. The rostrum, ante-room, etc., are furnished in the natural woods of Texas. One wing contains rooms for bureau of information, register messenger, telephone, telegraph, directors, Texas Press Association headquarters, commissioners, historical museum and library, toilet rooms, county collective exhibits, etc. The main entrances are through vestibules, flanked on either side by niches and colonnades. The main vestibules terminate in a large auditorium, connecting with the rooms mentioned. Great credit is due to Mrs. Benedette B. Tobin, the leading spirit in all that pertains to the Texas building.

CHAPTER VI.

THE NOTED BLUE GRASS STATE.

A Glance at Its Pretty Women—Fleet Horses and Fine Grasses of Kentucky—Kentuckians are Boastful, but They Never "Talk Through Their Hats"—Arkansas and Its Building—A Fountain of Hot Springs Crystals Illuminated by Incandescents—The Forty-five Thousand Dollar Building of Missouri—A Territorial Trio.

NOTED Virginian once stated that the greatest boasters in the world were Virginians, *always excepting* Kentuckians, Well, Kentucky has a good deal to boast of—great men. pretty women, fine grass, and some other thing that are thought to be the best of their kind. It is generally admitted that Kentuckians are boastful, but they never "talk through their hats." There are hens that make a great deal of noise, but they never cackle until after they have led their eggs. The Kentucky State building is typical of the southern Colonial style, as distinguished from the New England, and suggests the better class of old Kentucky homesteads. The size of the building, exclusive of porches, is 75x90 feet and cost $20,000, and in the center of the principal facade, under the covered porch, is the main entrance. To the left-hand side of the entrance, communicating with the lobby, is the parcel and check room and postoffice, while directly opposite is the office of the secretary, in connection with which is a smaller room used as an information bereau. The lobby opens on the great hall 35x40 feet in size, at the end of which is a wide stairway leading up to the second-story gallery. Under the wide platform in the center of the hall in the entrance to the dining-room. This platform is located midway between the two stories, and the greater part of this hall extends to the roof, with galleries around the second-story overlooking the first. On the left-hand side of the hall in a recess is placed the great hall fireplace. The mantel is 14 feet wide and the fireplace opening itself 8 feet, where great yule logs may be burnt. The ladies' parlors are on the left hand side of the building opening into the reception hall. The principal parlor is 20x36 feet, and communicates with the check-room and postoffice. On the right-hand side of the hall opposite the ladies' quarters are the gentlemen's parlors, the same size as the ladies' parlors, with a smoking-room attached. Adjoining the main hall and smoking-room is a side entrance hall, upon which the men's toilet room opens. The dining hall is 20x40 feet, abundantly lighted and with a deeply recessed alcove for the fireplace, immediately opposite the entrance to the hall. This dining-room communicates with the necessary serv-

ing-rooms, store-room, kitchen and servants' bed-rooms. The second floor si a gallery 8 feet wide, around three sides of the open light-well, which extends from the first floor to the top of the building, where it is roofed over with an obscured glass ceiling or sky-light. Extending across the entire front of the building, and opening on the wide gallery, are arranged three exhibition rooms, two of which are 20x27 feet, and the third 20x23 feet. On the right hand side, on this floor, is the commissioners' room communicating with the main gallery, and also a private hall and stairway leading to the first floor. With this hall are connected two sleeping rooms and bath-rooms for the use of the commissioners. On the opposite side of the building is the lady commissioners' committee room, and also a store-room, where packing cases, chairs, etc., can be stored. The three exhibition rooms are arranged so that they can be thrown together and form an assembly room. The interior is furnished in white or old ivory.

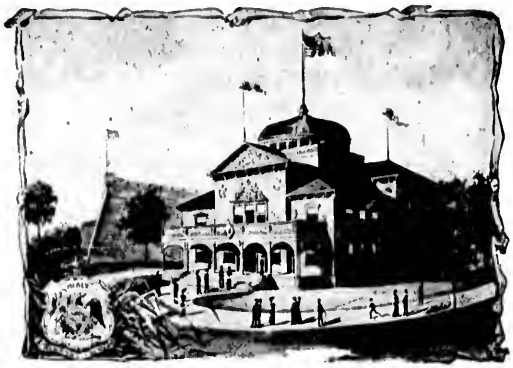
KENTUCKY BUILDING.

The State of Arkansas makes a very good showing; its building was designed by a woman, Mrs. Jean Douglas of Little Rock, and cost $15,000. It follows classic models, being in the French "rococo" style of architecture, as Arkansas was first settled by the French. The exterior is in plaster and ornamental staff work, tinted in light color. It covers a ground area 66x92 feet and has an elliptical entrance from a large circular veranda on the first floor. Besides the entrance lobby 16x29 feet, the first floor contains a rotunda 30x30 lighted by a central dome, eight rooms 15x15 on each side of the rotunda, five of which are used as exhibit rooms, and the registry room on the right of the entrance lobby. Opening from the rotunda by triple arches is the hallway, 11x55, with stairs at each end. The interior is tinted and the ornamental work is brought out in gold. There is an Assembly Hall 25x66 feet, with ten-foot mantel of Arkansas white onyz. On the second floor are the

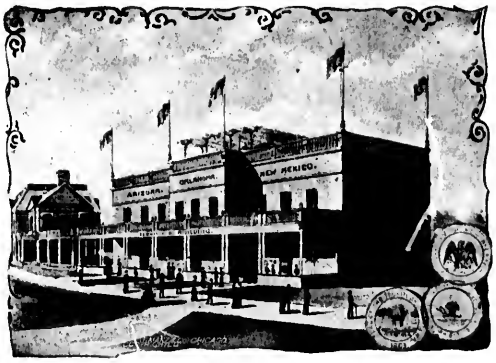
MISSOURI BUILDING.

parlors, library and clubrooms. The chief attraction is the fountain of Hot Springs crystals illuminated by electricity.

The ground plan of the Missouri building is square, with a quarter circle taken out of the southeast corner, to correspond with the form of the juncture of the two avenues on which it faces. To the south is the Art building, and to the east, across the avenue, is Pennsylvania's building. The building is 86x86 feet, two stories high, and cost $45,000. In the front, and over the main entrance, is an elliptical dome, 70 feet high, flanked by smaller octagonal domes, 48 feet high. The main entrance, which is in the southeast corner of the building, facing both avenues, is of cut brown stone from the quarries of Warrensburg, Mo. The balance of the structure is frame, covered with staff, and the columns and pilasters are of the same material. Within the same entrance is a rotunda, with a mosaic tile floor. On either side of the main entrance are minor entrances, the one on the left leading to the headquarters of Western Missouri and Kansas City, and the one on the right leading to the headquarters of Eastern Missouri and St. Louis. Within the rotunda are the telegraph office and the postoffice, occupying the space under the octagonal dome. On either side of the rotunda is a fountain. On the left of the rotunda are two exhibit rooms 30x20 feet and 28x17 feet. On the right is a journalists' room, a reading-room, a library, and a bureau of information. Entrance is had to the rotunda from all of these rooms by tilted halls. Two flights of stairs, very handsome, in red and white oak, lead to the second floor. A promenade balcony with a marble floor overhangs the main entrance. A large auditorium room, irregular in shape, occupies the center and large portion of the second floor. The southeast bay is occupied by a parlor and reading room for women, the southwest bay by a similar room for men. There are toilet rooms, and a committee room, and a special room for the Governor of Missouri. On the



ARKANSAS BUILDING.



JOINT TERRITORIAL BUILDING.

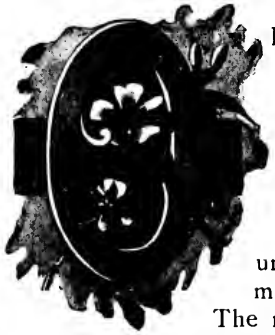
balcony floor are six bed-rooms, three in each bay, and a kitchen. The building contains thirty-two rooms. It is very handsome, and richly ornamented. The glass is all plate and was donated by Missouri manuafcturers.

The joint buildings of the territories of Arizona, New Mexico and Oklahoma occupies an advantageous location among the other States and Territorial buildings in the north end of the grounds. It is two stories in height, 28 feet over all, and has a frontage of 90 feet. It is ornamental in design and of a composite character, the lower story being supported by Doric columns. The main building is divided into three departments, one floor for each territory, each department having a grand reception room in the center, flanked on each side by parlors. The offices of the commissioners are grouped around the main reception rooms, dividing them from the parlors on each side. It is a frame building, finished in acme cement plaster, and is used for various exhibits as well as for the general headquarters. There is no more interesting place to spend half an hour than in this building, which may be considered the home of the Territories (Utah excepted), as neither Alaska or the Indian Territory has a building, and we haven't annexed Hawaii yet.

CHAPTER VII.

THE STATES BY THE LAKES.

The Beautiful Building of Ohio—A Great Resort Afternoons—Indiana's Superb Sixty-Five Thousand Dollar Edifice— Michigan's Attractive Building –Nothing to Excel It in All Round Beauties—The Wolverines in Their Glory—The Badger State Spends $30,000 to Make Its Denizens Comfortable.



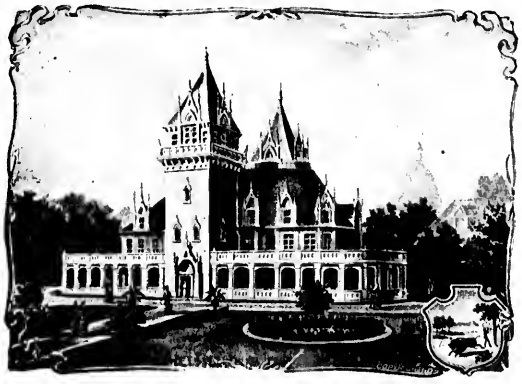
HIO, one of the greatest states in the Union, and 80 years ago the "far west," is represented by a $30,000 building on the North Pond, between the Art Palace and Illinois building. It is a type of the Italian renaissance—called in America, colonial—and is 100x80 feet, two stories high, of wood and staff with tile roof. The main entrance on the east is within a semi-circular colonial portico, thirty-three feet high, the roof supported by eight great columns. The tile roof, mantels, finishing woods, and much of the visible material are the gift of Ohio producers. The main entrance opens on a lobby, on the left of which is the women's parlor, and on the right a committee-room. Occupying the central portion of the building is the reception hall, 23 by 36 feet, and 28 feet high, extending through to the roof. The coved ceiling of the hall is ornamented. A broad terrace extends the entire length of the main facade, and back of the reception hall is an open court, 36 feet square, inclosed on three sides, the north and south sides being formed by the wings of the building. All of the north wing is occupied by the information bureau. The room is 30 by 59 feet, and is divided into offices by wire railings. In the south wing is the parlor for men, a writing-room, a smoking-room, and toilet rooms. On the second floor of the north wing is the assembly-room, 30 by 42 feet. The second floor of the south wing has a press correspondents' room, servants' rooms, bed and bath rooms.

Buckeyes molded in stucco form the motif of decoration in the main hall, and the coat of arms of the State appears in an ornamental stained window. The glass is an amber hue and the room bathed in a mellow radiance enhanced by soft brown axminster and cream tinted columns. The names of prominent Ohio men appear in other golden panes. The ladies' parlor is furnished in azure, ivory and gold, and in all its appointments denotes elegance and comfort. The grounds are in keeping with the building, and the eastern lawns are a great resort afternoons.

Indiana looms up appropriately, its building costing $65,000. It is situated north of the Woman's building and next to the building of Wisconsin. From the

western veranda the hoosier visitors may enjoy a beautiful view of the wooded islands, the lagoon, the Illinois building and nearly all the main structures. It is French Gothic in design with cathedral windows, turrets and towers. Two large towers with spires, one at either side, rising above the roof of the extreme point, are about 150 feet from the ground. The dimensions, including a veranda 20 feet wide with two floors extending entirely around the building, are 53x152 feet; height three stories and general appearance very massive. The towers are constructed of Colitic limestone brought from the Indiana quarries. The building is covered with staff. The entrance steps, balustrade and doorways are of handsome carved patterns of stone and make a fine display. The lower story floor is encaustic tile of handsome pattern Broad carved oak stairways lead from the lower floor into the towers of the building. The entire finish and the doors are of native quartered oak, carved and highly polished. On the first and second floors a wide hall extends through from one tower to the other, separating the office, parlors, reception and toilet rooms from the assembly room on the first floor, and the reading and writing room on the second floor, from the ladies' parlor, reception and toilet rooms in the north part of the building. On the ground floor is a parlor for women, with check and toilet rooms; a parlor for men, with check and toilet rooms. The assembly room on the lower floor is in the form of a half circle, or an immense bay wind w, and is used for the general reception room. On the second floor is a reading and writing room for the use of the general public, the women's private office and reception room, the office of the president, the State board and the executive commissioner. On the third story, over the main assembly room, is a large room suitable for a lunch room.

OH O BUILDING.



INDIANA BUILDING.

Michigan spends about $50,000 on its splendid building, which is one of the

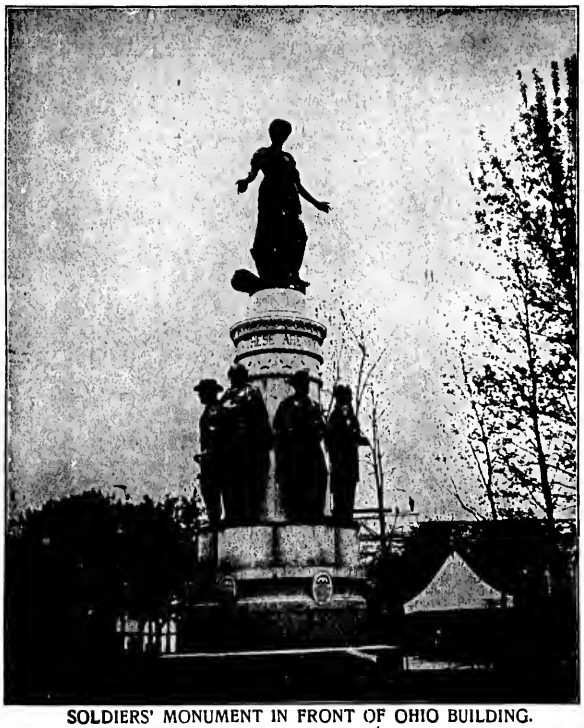
most showy home-like and convenient on the grounds. It occupies a beautiful site near the west end of the Art gallery, fronting on two boulevards and near the Ohio, Colorado and Wisconsin buildings. It is 100x140 feet and is constructed after the style of the renaissance and is three stories in height. It is surrounded on three sides by an elevated piazza twelve feet wide, with high red shingled roofs sloping over dormer windows, and rising majestically above the front entrance, a balconied tower 131 feet high. In this are two large illuminated clocks with six foot dials which may be seen a long distance. The rotunda has balconies, and is painted a light granite gray with the soft red shingles, the whole having a harmonious and homelike effect. The main entrance is by way of the west front, and one steps into a great tiled reception hall that extends the full depth of the structure and is sixty-two feet wide. Opening from this hall and near the entrance are the secretary's offices, check rooms, post office, and barber shop. The reception, reading and toilet rooms for men and for women are on either side of the hall way, and each apartment is spacious and handsomely finished. There are wood fire places in all of these rooms, with high oak mantels over which are heads of Michigan deer. On the second floor is an assembly room, 32x60, in which a fine pipe organ, built in Detroit, is placed, and an exhibit room room, 31x100 feet. In this exhibit hall is a collection of Michigan birds, beasts, and reptiles, woods, grains, Indian relics and minerals—everything that lives or has a being in Michigan. On the second floor is also the newspaper exhibit. Here are cabinets in which are shown the first page of every newspaper printed in Michigan. The directors and commission's rooms are also on this floor. On the third floor twelve chambers, with bath and toilet rooms, for members of the commission and employes of the

MICHIGAN BUILDING.

WISCONSIN BUILDING.

building. Five hundred incandescent lamps are used in and about the building. Many of these shine in clusters along the balcony rails.

The most of the important rooms in the building were furnished by the women of the various cities of the state. The men's reading and reception rooms were furnished at a cost of $4,500 by the citizens of Muskegon. The women's rooms were fitted up by the women of Grand Rapids. The walls of these rooms are done in ivory and gold, with plastic dado, and the curtains hanging in harmonious tints, are of the heaviest and finest materials. The women's toilet rooms are finished entirely in bamboo. Probably the finest apartment in the building is the Saginaw room. The contractor left this room unfloored, unceiled, and with bare studding, and the lumbermen of Saginaw stepped in and finished it up, floor, walls, and ceiling, with the best pick of all the different kinds of hard wood that come into the Saginaw market. A life like bust of Gen. Cass is placed upon the half-way landing of the main staircase, while throughout the building are pictures of noted Michigan men, "Badger State" scenery, etc. On the west front is a handsome stone parapet from the quarries at Bay Port, and surrounding the tower is a balcony capable of holding 200 Wolverines, should they care to afford themselves of the splendid view of the Exposition, to be obtained from this point.



SOLDIERS' MONUMENT IN FRONT OF OHIO BUILDING.

Wisconsin's building, which cost $30,000, starts out with brown stone from the shores of Lake Superior, follows that up with pressed brick from Menomenee, and finishes with shingles that grew in the state's northern forests. It is a reproduction of a Wisconsin home and designed in no special style, yet unlike many other structures, not being built of evanescent stuff, it looks like it was constructed for a family residence to be passed from father to son. It is enclosed on all sides

by spacious varandas, while the upper stories are all provided with cosy porches of their own, giving the building a particularly home-like appearance.

The structure is 118x92 feet in area, with high hipped roof, stained to an olive tint. The walls of the first story are of red brick; above are stained shingles. The main entrance faces the lake and is 19 feet wide, the columns and walls of the broad veranda which covers the portal are of brownstone and polished granite. Within the lobby—which runs the full depth of the building—opens the adjacent rooms by arches finished in red oak panel work, and carved with the Wisconsin coat-of-arms. The lobby itself is in white oak. There is a broad oaken stairway leading to the second floor, and midway up, set in front of the building, the good people of Superior have put a big stained-glass window. This window shows two views of Superior, one when it was a solitary Indian wigwam, the other the Superior of to-day. Pine boughs, skillfully wrought in glass, encircle these pictures. There is a view, too, of a whaleback steamer under full headway. The legend underneath informs him who looks that Superior is "the home of the whaleback."

The first floor of the Wisconsin building is divided in about the same fashion as has been followed in all of the state buildings. The southwest corner of the main floor is reserved for women's headquarters. This part of the building is done in curly maple, birch, butternut, and oak, all the woods coming from Chippewa county. There is a parquetry floor which was made in Racine. The men's rooms are across the hallway and are similar in size and appointments to those reserved for women. The rest of the main floor is taken up by the information bureau, package rooms and post office, which occupy the northwest corner. On the second floor are rooms and exhibit hall for the state historical society, a large assembly room, the office of the board, and the board's secretary, and reading and smoking rooms. The rooms of this floor are finished in birch and ash. They all open upon broad balconies in the east and west fronts of the building. On the third floor are chambers and bath rooms for commissioners and employes.

GROUP OF PRESIDENTS OF STATE BOARDS,

WORLD'S FAIR MANAGERS.

1. Gen. John W. Corcoran, *Massachusetts.*
2. Hall C. Burleigh, *Maine.*
3. Clem. Studebaker, *Indiana.*
4. Gov. R. E. Pattison, *Pennsylvania.*
5. Gov. Frank Brown, *Maryland.*
6. August L. Smith, *Wisconsin.*
7. Stephen J. Meeker, *New Jersey.*
8. Capt. A. A. Woods, *Louisiana.*
9. A. S. Buford, *Virginia.*
10. W. H. Dulaney, *Kentucky.*
11. N. G. Blalock, M. D., *Washington.*
12. James M. Wells, *Idaho.*
13. W. N. Chancellor, *West Virginia.*
14. James Mitchell, *Arkansas.*
15. W. T. Thornton, *New Mexico.*

CHAPTER VIII.

WHEAT AND CORN PRODUCING STATES.

Four Great States—How They Were Represented in Congress Thirty Years Ago—Unsurpassed Display of Iowa—Grandeur of Minnesota—Minnehaha and Hiawatha—What the Women of Minnesota Have Done for Their State—Bleeding Kansas and Its Inviting Display—The Twenty Thousand Dollar Building of Nebraska.

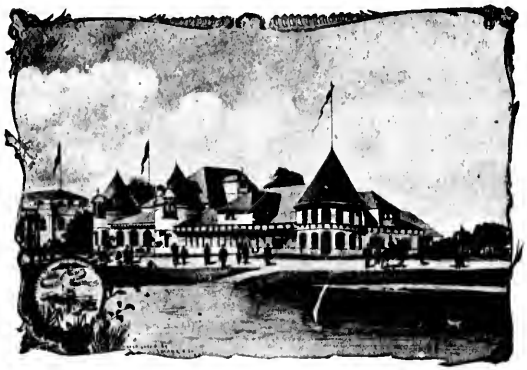
HEN the Civil War broke out more than thirty years ago Minnesota, Iowa, Kansas and Nebraska each had only one representative in Congress. Iowa now has twelve and the others are catching up. All are great States of the Union, and each is particularly represented at the Exposition. In the extreme north-east corner of the park, rising almost abruptly from the lake, stands the Iowa building. At first sight it seems to be mostly high roof and rounding towers, very pleasing to the eye. The total frontage is about 250 feet while the depth is 92 feet. The main entrance, which is from the south, is between two round towers, the space being spanned by a triple arch. Iowa is written all over this front. One of the towers, the western one, is belted with the names of all the chief cities of the state. The other bears medallions illustrating the state's history and growth. On the dormer windows of the towers are bas reliefs illustrative of agriculture and mining. Perched beside the finial of the highest peak on the roof is the figure of a farmer who looks as prosperous as if he really lived in Iowa. There is a broad reception hall with a hard wood stairway leading to the second floor. Opposite the landing of this stairway is a huge fireplace. On the mantel of this fireplace are these words:

Iowa.

The affections of her people, like the rivers
of her borders, flow to an inseparable union.

From the main hall to the left the women's parlors open. There are two of them—one is circular and gives fine views west, south, and east. Well-appointed retiring and check rooms are connected with these parlors. At the rear of the main hall are big lounging and smoking rooms for the men. All of these apartments have big open fireplaces. There are rooms, too, on the first floor—the post office, check stands, information bureau, headquarters of the state board, and super-

intendent's office. The whole of the eastern wing of the building is occupied by the exhibit hall. The stairway from the main hall leads to the assembly room which occupies most of the second floor. This room is about 40x60 feet in area, but it is hard to tell about that, for it is about as irregular in outline as the rest of the building. It is an altogether pleasant place though, to assemble. Here is the state's art exhibit and the exhibit of women's work. Connecting with the assembly room is the large apartment of the state historical society, and in the north-east corner of the second floor are the rooms for newspaper men, and, by the way, these Iowa newspaper men are pretty well treated, for they have two fine rooms overlooking the lake, one for loitering, the other for working purposes. The lounging room has a newspaper man's mantlepiece in it. The central figures on either side are newsboys in full chase. Then there are bas reliefs of pastepots, and shears, "shooting-sticks" and composing sticks, and whatever spaces are left the designer has filled up with pleasant representations of that important personage, the printer's devil. This room is further bedecked with a frieze of newspaper headings. Perhaps the most interesting part of the building is the exhibit hall, and people who think corn is nothing but horse feed have here a fine chance to study its effects as a decorative material. Corn ears, some of them split lengthwise and some of them sawed up into circles, are worked into all sorts of fancy designs. There are festoons of corn and corn pictures. The capitals of the columns are trimmed with small grains, and there are festoons of grasses here and there, but mostly it is just corn. About the walls are series of big pictures, done in corn, illustrating Iowa's resources, her mines, her clay beds, dairying, stock-raising and grain-growing industries and the work of her schools.



IOWA BUILDING.

There have been used in decorating this room 1,200 bushels of corn and three and one-half car-loads of cereals. The work is a new phase of the polychrome house decorative art, except that the raised colors are given by different cereals and corns. The capitals of the columns are worked out in corn shucks and millet heads. From the roof-tree to the walls the ceiling is divided into three sections, the top one being general in design and made of all the field products of the state. The next section has fourteen panels, those on the side ceiling containing figures illustrating the different industries of the state. These panels, in an interesting way, demonstrate the worth of grains as a decorative auxiliary. At each end of the ceilings are panels containing the American eagle and shields worked out in grains, and in the four corners of the ceiling are shields with the device, "Iowa, 1846-1893," worked out on

a blue field in white corn and shucks. Where the pillars join the roof is a frieze, an elaborate scroll-work made of festoons of corn and wheat and millet seeds. The spandrels between the windows are done in tessallated panels of many colored corns. In one corner is a round band stand reached by a short stairway and decorated in much the same manner as the main hall except that the frieze represents a grape vine, the leaves being made of corn shucks and the fruit of purple-colored popcorn. There is not a piece of wood shown in the entire hall, which cost $12,000 to decorate. Throughout it is one blaze of color and nothing but the natural products of Iowa were used and not a kernel was dipped in paint or dyed. In the center of the hall is a model of the state capital made entirely of glass and filled with grain. It is 21 feet high, 23 feet long and 13 feet wide. Facing the eastern entrance is a heroic group, the center figure being a woman. It represents Iowa fostering her industries. Grouped around by the pillars are small pavilions and pagodas, on which are displayed the different products of the farm and mine. The State spent $35,000 on this building. The people of Iowa have won conquests before. Their corn palaces have attracted the country's attention, and their coal palaces have been a revelation. In the Iowa building these ideas have produced some marvelous effects. To the farmer visitor nothing has been more interesting and striking. To everyone the Iowa building is worth an extended visit. Minnesota is the greatest flour producing State in the Union, and when the civil war commenced it had only one representative in the lower hall of Congress. Its building, which cost $30,000, is designed in the Italian renaissance style, two stories high, with a mezzanin story in the rear. The frame is of wood, covered with staff. The roof is of Spanish tile. The ground dimensions are 78x91 feet. The main entrance is on the south. In the recess within the entrance is a sculptural group, symbolizing the

MINNESOTA BUILDING.

KANSAS BUILDING.

legend of Minnehaha and Hiawatha. On the first floor is the exhibition hall, 52x78 feet, a postoffice, baggage and ticket rooms, and superintendent's room. The main stairway is in the rear, opposite the entrance, and on the landing, half-way up, is a semi-circular bay alcove, lighted with large glass windows. On the second floor is a reception hall, 30x33 feet, parlors and retiring rooms for men and women, and a committee room. In the mezzanin story are four bed rooms and two bath rooms. The interior walls are plastered, decorated in fresco, in plain tints, and finished in pine. The woman's rooms have color decorations done by women of the State.

Bleeding Kansas spent $25,000 on its building. Its ground plan is irregular. It approaches a square, one side being straight, and the other three forming irregular angles. It has a ground area of 135x138 feet. It is two stories high, built ot frame and staff, and is surmounted by an elliptical glass dome. The main exhibition hall occupies nearly all of the first floor, and extends through to the glass dome. A balcony, from the second story, overhangs the main entrance on the south, and a second balcony extends around the base of the dome. The north end of the main floor is occupied by a natural history collection. There are also offices for the boards of commissioners on the first floor. Four flights of stairs lead to the second floor, where are rooms for the women's exhibits, a school exhibit, and parlors for men and women.

NEBRASKA BUILDING.

Nebraska spent $20,000. Its style of architecture is classical and of the Corinthian order. The building has a ground area of 60x100 feet, and is two stories high. The exterior is of staff. On the east and west fronts are wide porticos, approached by flights of steps. Over the porticos are projecting gables, supported by six columns, twenty-five feet high, the full distance from the cornice to the floor. In each pediment is the State seal, in bas-relief, five feet in diameter. From each portico three large double doors of oak give entrance to the exhibit hall. The room is 60x70 feet and in it an agricultural display is made. On the first floor, also, are a reception room, commissioners' office, baggage room and postoffice. A double stairway, nine feet wide, leads from the center of the exhibit hall to the second floor. Here is an exhibit room, 60x70 feet, used for an art exhibit. On this floor are a women's parlor, reading room, smoking room and toilet rooms.

CHAPTER IX.

BUILDINGS OF THE STATES OF THE GREAT INTERIOR.

Horace Greeley's Advice Abundantly Taken—Many Millions Go West—The Noble Structure of the Centennial State—The Wyoming and Montana Buildings—Headquarters of the Young State of Idaho—The Two Dakotas Pretentiously Represented—Utah Takes a Place Among Its Full-Grown Sisters.

HORACE GREELEY got rid of many a young man by advising him to "Go west." But neither that philosopher, nor Fremont, nor Marcy, nor Kit Carson, nor Brigham Young, dreamed the hundredth part. Why, there are geographies now that have the words "The Great American Desert" inscribed across the delineation that contain the boundaries of the great States of Montana, Wyoming, Colorado and others. Colorado is the oldest of the interior States, and was admitted into the Union just one hundred years after the Independence Bell sounded its notes of freedom to a listening world. Its building is in the Spanish renaissance, and cost $35,000. The exterior of the building is in staff of an ivory color, and in the salient features of the design profusely ornamented, the ornamentation comparing to fine advantage with the broad, plain surfaces of the building. The striking feature of the design is two slender Spanish towers, 98 feet high, rising from either side of the main entrance, on the east. The tower roofs and the broad, overhanging roof of the building are covered with red Spanish tiles. The building is 125 feet long, including the end porticos, with a depth of 45 feet, and 26 feet to the cornice line. The front vestibule opens to the main hall of the building. On either side of the entrance are stairways to the floor above. At the rear of the hall is a large onyx mantel, flanked by glass doors, leading to offices. At the ends of the hall are a men's smoking room and a women's reception room, each opening into an uncovered terrace, surrounded by a balustrade. On the second floor is the assembly room, extending the entire length of the building in the center. This room has a high vaulted ceiling, rising above an ornamented cornice. Over this cornice are rows of electric lights, giving a diffused light, by reflection from the vault above. On the ends of this assembly room are a reading and a writing room, which open to the hanging balconies on the ends of the building, forming one of the most attractive exterior features. Broad, low casement windows open from the assembly rooms to the front and rear balconies, the front one extending between the towers,

24 feet, and over the main entrance. The rear balcony extends along the entire length of the building. Staircases lead to the lanterns in the tower, where a fine view of the grounds is had.

The Wyoming building, which cost $20,000, is in style a modern club house. The dimensions are 70 feet in length, by 60 feet in width. It is located in the extreme north end of the grounds, commanding an interesting view across the parklike portions of the grounds reserved for State buildings. It is also convenient to the steamboat landing. The interior arrangement consists of a main hall 24x40 feet, with two offices on the first floor, which are used for the reception and entertainment of visitors, while the collective exhibit is placed in the main hall. From here a circular stairway ascends to the second story, where the toilet rooms are located. The gallery around the hall and doors leads out upon the balconies on each of the four sides. The building is in the French chateau style, and the panels of the main frieze exterior contain elaborately wrought hunting and pastoral scenes. The people of Wyoming realize that the Exposition offers an unusual opportunity to make known to the world the varied material resources of their State; her coal lands, wells of oil, soda deposits and rich mines of iron and precious metals. The exhibit is arranged with the object of showing forth the advantages of the State, both to home-seekers of limited means and capitalists seeking fields of investment. To this end the classification includes Wyoming's best specimens of wheat, corn, oats, barley, rye, buckwheat, native and cultivated grasses and forage plants. Irrigation methods are illustrated with maps and diagrams. The live stock exhibit includes the best specimens of blooded horses and cattle, and illustrations of methods of handling

COLORADO BUILDING.

WYOMING BUILDING.

range horses, cattle and sheep. The committee on horticulture and floriculture have made their departments as complete as possible, representing all perishable articles by fac-similes in wax or plaster. Specimens of the present and extinct animal life of the State petrefactions, Indian implements, dress and ornaments have been carefully collected by the committee on scenic exhibits, and form a most interesting feature of the State's contribution. The committee also endeavors by means of paintings, photographs and models, to illustrate other striking features of Wyoming and its leading industries.

MONTANA BUILDING.

The Montana building is in the Romanesque style of architecture, one story in height, and cost $16,000. It has a ground area of 62 feet front by 113 deep. The structure is frame, covered with staff, the interior being ornamented with heavy, projecting pilasters, with Roman caps and bases and Roman arches. The roof is of tin and canvas, and the building is surmounted by a glass dome 22 feet in diameter and 38 feet high. The front of the building, facing the south, presents two side wings, with a large arched entrance in the center. The fronts of the wings are ornamented with heavy, scrolled pediments. The entrance arch is 12x12 feet, supported by heavy columns. Within is the vestibule, with marble floor and ceiling paneled in staff. It presents a series of three arched doorways, the center one opening into the rotunda under the dome, the side doors leading to the men's and women's parlors. On either side of the entrance arch are balustrades, enclosing the vestibule. Flanking the arch are two panels, 4x5 feet in size, one bearing the State motto, "Oro y Plata"—gold and silver—and the other, "1893," in Roman figures. These panels are in pure sheet gold. Above the entrance arch, and practically on the roof of the building, is the figure of an elk, of heroic size, cast in staff. The interior is finished in Georgia

IDAHO BUILDING.

pine. The walls are tinted in oil. All the main rooms open on to the rotunda. under the central dome. In the rear is a banquet hall, 40x50 feet, covered by a large skylight. In the center of this floor stands a group of three mounted elks. A wide gallery extends around the hall, and in the gallery the State exhibit is made. The territory embraced within the limits of the young State of Idaho, though traversed by many beautiful and fertile valleys, is in the main a mountainous region, its mean elevation being about 4,700 feet. In fact, from the beauty and grandeur of its mountain scenery it was named, quite appropriately, Idaho, "The Gem of the Mountains." Its numerous streams are bordered by dense forests of valuable timber, and the developments of recent years have discovered that its mountains are rich in precious metals. Though the State has made rapid strides in recent years in the matter of general improvement, the log cabin of the pioneer is still a familiar scene, and the forests and hills still abound in wild game. In designing and decorating Idaho's building for the Columbian Exposition, an effort was made to give some expression to the characteristics above referred to, to exemplify in a measure some of the chief products of the State, and to suggest some of its interesting features. All of the materials used in the construction of the building are products of Idaho, and nearly all of the decorations were there obtained. The general style of architecture is Swiss, modified in so far as was necessary to adapt it to the materials to be used in the construction and to illustrate local conditions and cost $40,000.

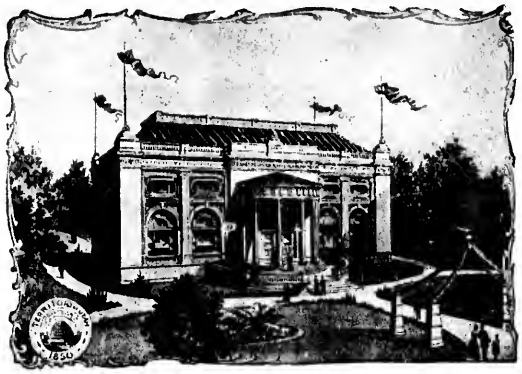
NORTH DAKOTA BUILDING.

SOUTH DAKOTA BUILDING.

The headquarters for North Dakota visitors is a pretty, hospitable-looking building adjacent to that of Kansas and cost $18,000. The building is 70x50 feet. A space 46x21 feet in front of the main assembly hall, between the two committee rooms, is used as a court-yard. From this court-yard the main assembly room is entered through a large stone arch, above which on the exterior is an elaborately carved

panel containing the coat-of-arms of North Dakota. The main feature of the interior is the assembly hall, which includes a space 24x56 feet. The room is spanned by four broad arched beams between each of which is a wide window reaching from near the floor to the roof. At either end of the room is a broad fire-place. Committee and toilet rooms are provided throughout the building. The structure is two stories high, and on the exterior the walls of the main gable ends are built of brick. The remainder of the walls are of timber, filled in between with plaster panels. North Dakota pays great attention to the exhibit of her principal product, wheat, but also making a good showing in several other departments. The educational advantages of the State are fully presented, and her exhibit is among the best.

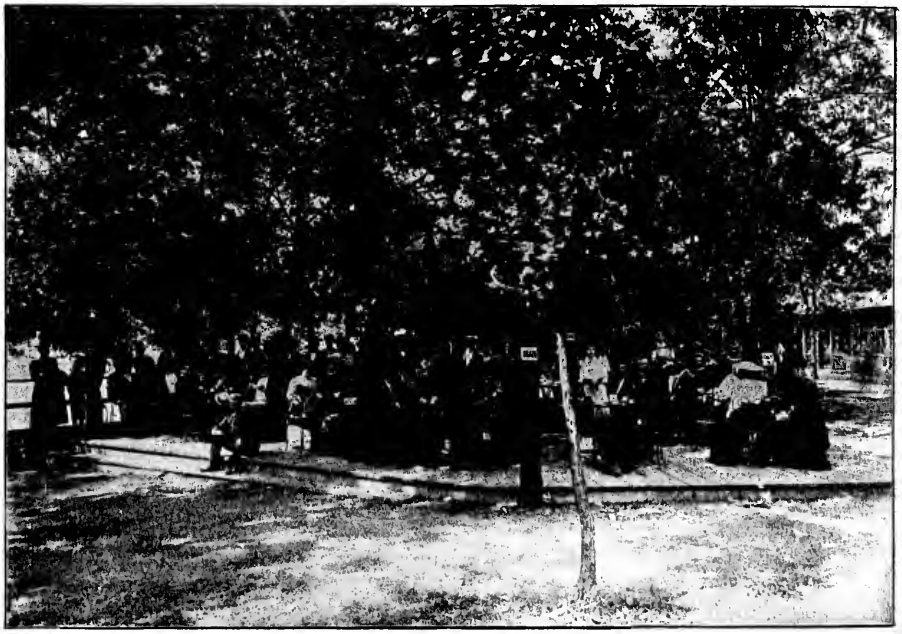
The South Dakota State building has a ground area of 70x126 feet, and is two stories high and cost $15,000. The structure is frame, the exterior being covered with Yankton cement, in imitation of stone work. The roof is corrugated iron and the cornice and brackets are pressed zinc. The main entrance is on the east, along which front extends a wide porch with heavy columns supporting a balcony from the second story. On the left of the main entrance is a women's parlor, on the right a men's reception room. In the main body of the building is the exhibition hall, 44x58 feet. Six feet above the main floor is an entresol, having committee rooms for the boards of commissioners. In the northwest corner of the main floor is a room for press correspondents. The rotunda in the center of the building extends through to the roof and is covered with a skylight. The second floor is devoted to rooms for the women's exhibit and special State exhibits.



UTAH BUILDING.

Among the great interior states is the Territory of Utah, which has a building that cost $10,000 to erect. It is two stories high, and has an area of 46x82 feet. In style the facade is modern renaissance. The foundation, columns, pilasters, cornice and other ornamental parts are made in imitation of the different kinds of stone in Utah. The walls are lined off in imitation of adobes. On the first floor is an exhibit hall, 41x45 feet, open to the roof and covered with a skylight. In the rear of this hall is a circular bay, and in this is the main stairway. This building has chaste and simple outlines, and is an ornament to the grounds, standing as it does among the other state edifices, and lending its handsome exterior to the group. It is a worthy illustration of the taste of the people of that territory, and will attract the visitor by its novelty. Its interior is planned with a special view to the comfort of those who make it their headquarters. The two stories are laid out in nearly the

same fashion, comprising on the first floor several rooms for the use of the commissioners. A reception room is placed here, as also the secretary's office, and women's parlor. The second floor is similar in arrangement to the first, there being an exhibition room, 41x45 feet, and various office rooms.



SERVING COFFEE IN THE KIOSK OF THE BRAZILIAN GOVERNMENT BUILDING.

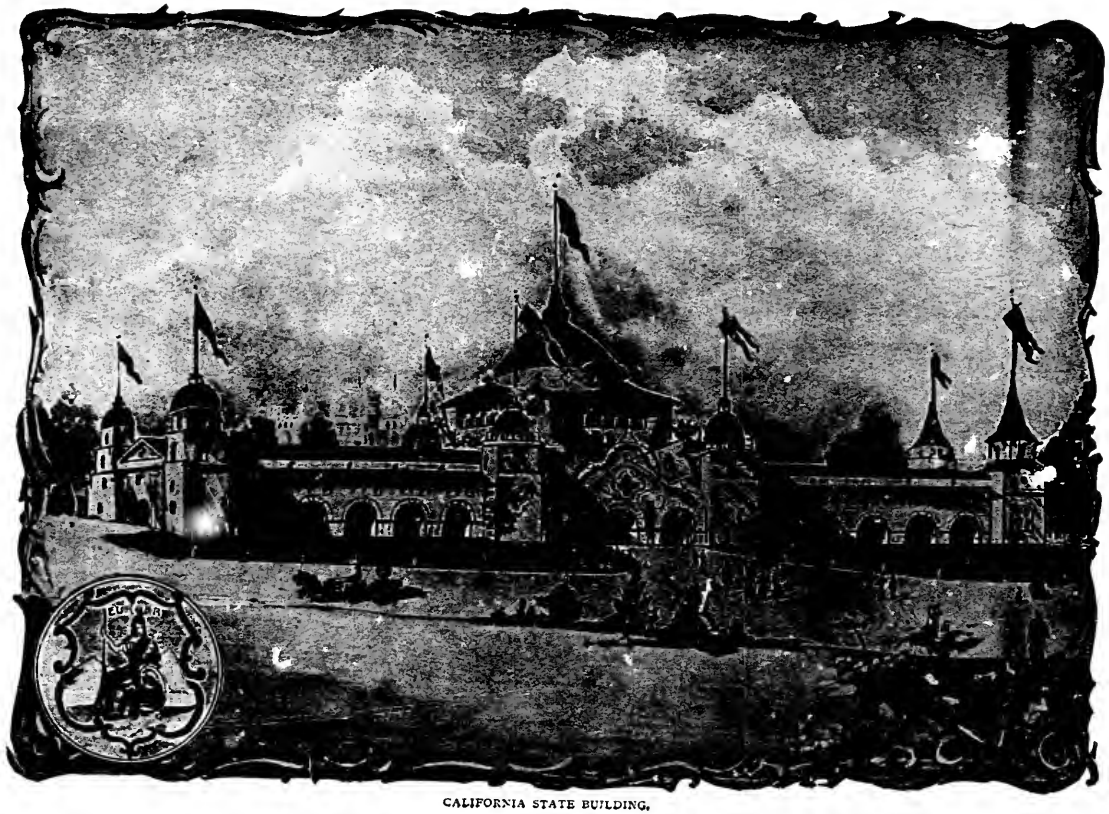
CHAPTER X.

A PEEP AT THE PACIFIC SLOPE.

California's Reproduction of Some of its Old Mission Churches—A Unique Blending of San Antonio of Padua, San Juan, Capistrano, San Diego and Santa Barbara—100,000 Square Feet of Space Occupied by 266 Exhibitors from the Golden State—Great Columns and Pyramids of Fruits—Pavilion of Redwood and Laurel—Samples of Gold, Silver, Copper, Tin, Quicksilver, Iron, Coal Borax and Many Other Minerals—Orange, Lemon, Pomegranate, Fig, Lime and Apricot Trees In Bearing—Towers of Walnuts and Almonds—Masses of Dried, Preserved and Crystalized Fruits—A Live Palm Tree From San Diego County 127 Years Old, 50 Feet in Height, and Weighing 47,000 Pounds—Beautiful Display of Spanish Silk and Silver Work—The State of Washington—A Wonderful Exhibit—Woods, Metals, Cereals, and Fruits in Amazing Abundance—A Great Display of Taxidermy—The Biggest Flagstaff in the World.

CALIFORNIA, glorious state of the Golden Gate, Yosemite, and semi-tropical climate, has given to Jackson Park the second largest state building in its combination of old Spanish mission architecture. It is situated on the west side of the grounds, north of the Woman's building, and just at the entrance, and is, perhaps, more picturesque than any, save the Fisheries. It is 144x500 feet; the main cornice line is fifty feet from the ground, while the top of the central dome is some eighty feet. The exterior is of plain plaster, artificially seamed and cracked, giving it the appearance of the old mission buildings, while recessed entrances give the walls that appearance of depth and solidity characteristic of those old structures. The south front of the building is formed of an Ionic colonnade with three arched openings, which with the south towers, is reproduced from Mission Santa Barbara. The northwest belfry is taken from Mission San Luis Rey, and the east towers and the towers around the dome from Carmel Mission. The entire east front of the building is a reproduction of Mission San Antonio of Padua and the north front, of Mission San Juan Capistrano. Some of these have old Spanish bells brought over by the Franciscan friars, more than a hundred years ago. The roof is finished with red earthenware tiles, while surrounding the central dome is a roof garden of tropical vines, plants and palms. Two elevators run up to the garden; these elevators are placed as exhibits, being a California product; the power being a combination of steam and water.

This building is not of the clubhouse character of most of the other state buildings. The entire first floor is open, and is devoted to California state displays,



CALIFORNIA STATE BUILDING.

principally of fruits and canned goods. There are three fountains on the ground floor, one in the center, and one on either end. The central hall is surrounded by a wide gallery, and on the gallery floor in the north end of the building is the banquet hall, a kitchen and an assembly room. In the south end are four servant's rooms, and there is a cafe on the roof. In the north end of the gallery there is also a council chamber. On the east side are the offices of the commissioners and their secretaries. The whole of the interior is devoted to California products, most of them exhibited by individuals. The 100,000 square feet of space is occupied by 266 individual exhibitors. Southern California takes the south half of the building and the northern section the north half. A great many exhibits are made by counties. San Mateo county has erected a pavilion built of redwood. It is circular in form with large Corinthian pillars, the roof of which is covered with brilliant-colored pebbles. In it are shown the wines and grapes and other products of this particular county. In the center of the building is a huge relief map of San Francisco. It is twenty-five feet in diameter and four feet high, showing the topography of the site and the architecture of the city from the seal rocks at the Cliff house, and from the Golden Gate to the hills of Alameda. So complete is the model that each visitor from San Francisco can pick out his home. Of all the states, California is the only one where the celebrated pampas grass thrives, and as this is something of a curiosity, there has been erected a pampas palace by Mrs. Harriet Strong, of Los Angeles county at an expense of $4,500. It is Moorish or Arabic in design, and is made entirely of the plumes and stalks.

Another remarkable exhibit is the obelisk of sweet oil made by Mr. Lloyd, of Santa Barbara county.

Visitors from Boston have a chance to gaze on and admire a bean pagoda forty feet high. California raises more beans than any other state in the Union.

In the rotunda of the building is a palace of plenty. It is erected by the six southern counties of the state. They are all semi-tropical in nature and contribute rare plants and ferns for the palace. It is covered with flowers and made entirely of products from the southern sections. In it are shown the various fruits grown in the South, and just beside it, stands a tower made of walnuts. Fresno county is represented by a pyramid of raisin and wine exhibits. A model of the great irrigation system that has reclaimed the desert is shown in the center. Obelisk exhibits of olive oil, pyramids of marmalade, towers of dried fruit and many other things are shown in abundance.

Just under the big dome stands a palm tree, 127 years old. The tree is fifty feet high, and has been one of the attractions for tourists as they drove up the bay of San Diego to the ruins of the old mission, which is up San Diego river, several miles from the bay. The removal of the huge plant was something of a problem. A box was sunk around its roots in an excavation made for the purpose, and the tree thus inclosed was lifted by a derrick with the heart about the roots bound to the tree by the protecting box.

California women occupy three large rooms decorated by their women artists. The scheme of interior decoration for the rooms is an illustration of the

CALIFORNIA STATE BUILDING.

wonderful wild flowers that cover the mesas and valleys of the golden state. Travelers in the region about San Diego, Los Angeles and Santa Barbara are impressed by the unusual beauty of the state flower—the garden poppy, or, as it is called there, the eschscholtzia. In every valley and on the mesas where there is suitable soil and moisture it grows in bewildering profusion, sometimes so abundant as to predominate the landscape with its rich hues of gold and orange. This is used altogether in the decoration of the main room in the gallery. The center of the ceiling contains an allegorical panel, the picture of a young girl scattering poppies. Below the central panel, encircling the sloping sides of the ceiling, are wreaths of wild flowers, the poppy conspicuous among them. In the center of each wreath is the name of a county of the state. Great credit is due Frank Wiggins for what he has done for Southern California, and also to the great lemon producer, Mr. Garcelon, of Riverside.

On opposite sides of the room are two white woven grilles carrying out the general design in conventional form. Between the poppy-room and the one next to it, which contains the wild-flower collection of the state, are portieres of sixteenth century cloth, bordered with poppies and gold fringe. Women throughout the state have joined in the effort to make their apartments at the Exposition a striking feature of the state's display. Monterey has sent portieres of yellow silk, emblazoned with eschscholtzias in Spanish drawn work, valued at $500. The jewelers and other firms of San Francisco have had special silverware, furniture, lamps and wood carvings made with the same flower as the principal designs. A white and gold carpet to complete the furnishing, and the effect of the assembled decorations is extraordinarily rich.

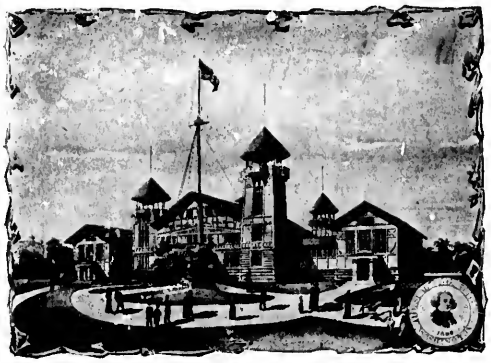
The visitor will be struck by the splendid exhibits of Los Angeles, Orange, San Diego, Ventura and San Bernardino counties, which have been particularly mentioned, and the exhibit made by Frank Kimball.

Oregon and Nevada have no state buildings, although the latter spent $10,000 in the Mines and Mining building, and the former makes one of the finest of all the pomological displays to be seen in the Horticultural building, although the state made no appropriation.

The newly made State of Washington decided to erect a building entirely unlike anything else at Jackson Park. With its quaint towers it reminds one somewhat of a Holland residence and wind-mill. The first floor, to a height of eight feet, is of rough hewn Puget Sound logs, and from this height, for twenty-two feet more, upright timbers form the superstructure. It is further distinguished by a tall flag-pole, which raises its lofty crown, sentinel like, 208 feet from the mound. In architectural design it is sui generis, but it is likewise picturesque. Briefly described the building is composed of a main structure, flanked on either side by two wings, and for sole exterior adornments has just four towers, each 96 feet high, at the east and west fronts of the main building. The building, with the two wings, covers a space 204 feet frontage by 126 feet deep. The wings are connected by passages. The main entrance is an important decorative feature, of grinite marble and ore from the State, forming a broad vestibule built of native stone, 23 feet

high and 18x21 feet in area. All of this stone was donated to the commissioners, and came from the Chuckanutt, Tanino and Pittsburg quarries.

The interior arrangement is as roomy as it is elaborately finished. The entire space of the main building is a grand hall, 70x126 feet. At each end, east and west, is a balcony. The east space is fitted up for the commissioners' rooms, and elaborately decorated and frescoed. The interior roof arrangement is suggestive of church ceilings. Immense Swiss trusses extend clear through the seventy feet of space. Roman arches span the aisles and passage-ways leading to the wings on either side. The ceiling here shows also the beams in the rough, and the space between has been arranged as panels, with frescoes painted by Washington artists; each panel reproduces a landscape of Washington. The interior arrangements of the wings are exactly the same. Throughout the entire building Washington's natural products are displayed. For this purpose lofty shelves and cases are erected against the walls and in the center of the halls. In the very center of the main hall a minature Washington farm is exhibited. The west end is devoted to fisheries and taxidermy. In this latter branch every wild beast found in the Washington forests and on its mountains is shown true to life. These include elk, moose, bears, mountain lions, cayotes, foxes, deer, mountain sheep, and others of the smaller animals. In the passageways the horticultural and agricultural products of the State are carefully displayed as well as at the east end. The right wing is given up wholly to the woman's exhibit, and the left wing to forestry, botany, minerals, coal, stone and iron. The building and exhibit is estimated to have cost about $100,000.



WASHINGTON BUILDING.

COMMISSIONERS FROM FOREIGN COUNTRIES.

1. Sir Henry Wood, *Great Britain.*
2. Hon. Adolph Wermuth, *Germany.*
3. Astere Vercruysse, *Belgium.*
4. H. E. Imperial Chamberlain P. de Gloukhovskoy, *Russia.*
5. Ibrahim Hakky Bey, *Turkey.*
6. H. E. Marshal José Simeao de Oliveria, *Brazil.*
7. H. E. Senor don Enrique Dupuy de Lome, *Spain.*
8. Hon. S. Tegima, *Japan.*
9. Hon. Anton von Palitscher-Palmforst, *Austria.*
10. Chr. Rayn, *Norway.*
11. Arthur Leffler, *Sweden.*
12. Hon. Dr. Arthur Renwick, *New South Wales.*
13. Hon. J. J. Grinlinton, *Ceylon.*
14. J. J. Quelch, *British Guiana.*
15. Hon. Frederick Douglas, *Hayti.*

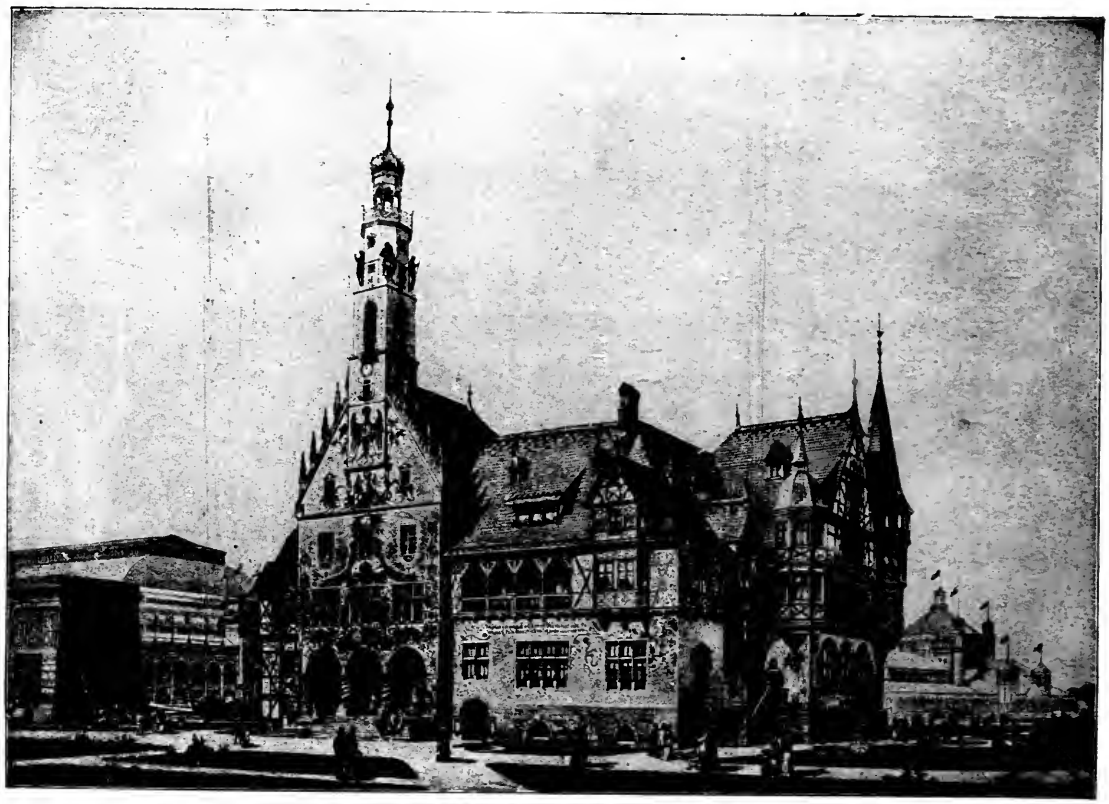
PART X.

AMONG THE FOREIGN BUILDINGS.

CHAPTER I.

The German Building—A Combination of Numerous Styles of Architecture—Nearly a Quarter of a Million Expended—A Home of Many Gables, Balconies and Towers—Reproduction of a Rural Chapel—Collection of Bismarck Souvenirs—Historical Documents and Copies of Treaties—Tapestry, Furniture, Bronze, Statuary and Paintings from German Factories and Studios—Some Beautiful Work in Carved Oak—Handsome Carpets and Rugs—The Pavilion of the Norwegians—A Type of Architecture which Originated Eight Hundred Years Ago—Timbers from Christiana—The Swedish Building—Modern Brick and Terra Cotta from Prominent Manufacturers of Sweden—The "Venice of the North"—Many of the Products of Sweden Represented—Exquisite Embroideries and Needle Work—Panorama of Swedish Landscape.

BESIDES being the largest of all foreign buildings, the German Government building is the most substantial and much the handsomest on the lake shore. Next to the Spanish building and near the British, its variegated roof, airy bell tower, minarets, pinnacles and solid brick walls contrasting strangely with its neighbors, it is yet the richest, largest and most pretentious building in the group. Occupying a frontage of 150 feet and a depth of 175 its main height is 78 feet, while the overtopping tower is 150 feet from the ground. The building is a combination of several styles of architecture, being a transition from the renaissance to the Columbian period, embodying in the whole a composite of the Gothic, Nuremberg and German school of to-day. The outer walls are decorated after the manner of the old German houses with the imperial eagles and allegorical figures. At three different corners of the structure are three lesser towers, in which are hung three bells which were presented to the commission by the ten-year-old Crown Prince of Germany. After the Exposition these bells are to be sent back to Europe, and placed in a church which is to be erected as a memorial to the old Emperor William, and called the Church of Peace. The rather steep roof is covered with shining glazed tiles. The roof corners, water spouts, etc., down to the large lantern in front of the tower, are of shining brass or mellow-hued bronze. The center is in the form of a chapel, rich in decorations. Bay windows, projecting balconies, turrets, etc., lend the structure a most picturesque appearance, one closely resembling that of an old German "Rathhaus" or



BUILDING OF GERMANY.

BUILDING OF GERMANY.

city hall, such as may be seen even at this day in Nuremberg or some other ancient town. The massive walls are decorated and frescoed in South German style.

Over the main entrance, in Gothic lettering, the following characteristic German motto in ancient rhyme appears:

Nahrhaft und wehrhaft,
Voll Korn and voll Wein,
Voll Kraft und Eisen.
Klangreich, gedankenreich.
Ich will dich preisen, Vaterland mein.

Which in English would be:

Fruitful and powerful,
And full of grain and wine,
Full of strength and iron,
Tuneful and thoughtful,
I will praise thee, Fatherland mine.

But the interior is even more impressive and finer than the exterior. After passing through the magnificently decorated rotunda, a second hall is reached. This, in fact, is a separate wing, some forty feet high and divided by an arched passage of considerable width and height. This inner wing, with the exceptions noted, extends over the entire space in the building, covering an area of about 2,000 square feet. The pillars everywhere are heavy, short and solid throughout, and the arches are semicircular, the style being early German renaissance. Balconies rise in tiers on all four sides of this vast interior space, and heavy timber and castings used in their construction being richly painted and decorated. Subdued color effects, such as dull reds and blues and yellows, are every where visible, and the niches and corners show poetic paintings made by Max Seliger, a talented artist sent by the German government.

The chapel is a reproduction of a private chapel in one of the German castles. It is on the west side of the building, the nave being a large bow-window of stained glass. It is eighteen feet wide by thirty feet long and around the sides are placed images carved in wood and stone illustrative of church decorations. The walls are painted a subdued tint and many texts are illuminated and placed around. Here a large collective exhibit is placed, some fifty firms in Munich, Berlin, Heidelberg, Crefeld, Carlsruhe, Aix-la-Chapelle, Cologne, Wuerzburg, etc., being represented in it. Appropriately enough this exhibit is one of modern church art—or rather art applied to churches. Some very fine stained and painted windows and oriels; magnificent church vestments of silks, velvets, linens, brocades, etc., embroidered or embossed; costly and artistic vessels for sacred use, fashioned of gold or silver; handsomely illuminated missals and prayer books and Bibles; and, lastly, plastic church art, such as statues and statuettes of saints, etc., crucifixes, etc., all form part of this highly interesting exhibit. On the altar is placed the silver communion service. It is very massive and hand carved. This service is destined for the same church as the bells donated by the young crown prince.

The German publishers have arranged a comprehensive general exhibit of their wares—the art of printing being above all well illustrated by a large assortment of magnificently bound volumes of every kind—rare scientific works especially. But in cartography, lithography, photography, chromography, engraving, etc., and all their cognate branches, the art is thoroughly represented in thousands of beautiful specimens. And this fine collection—which ultimately is destined to enrich some American institution, perhaps a public library or a university—is placed on the upper galleries or balconies of the building, arranged so as to easily afferd instruction and an intelligent appreciation of its treasures. A reading room for the public is also provided, in which students may indulge the privilege of feasting their minds on some particular tome that has engrossed their fancy. Adjoining the library is a large room decorated in imitation of an old castle hall. It is used as an exhibit room for the presents which have been given to the different members of the royal house. The collection of Bismarck souvenirs is very large. It consists of addresses paid him by different localities, many artistic silver and gold cases holding the freedom of various cities, a drinking cup from the residents of Frankfort and the spurs he had when at the head of the German army. The Von Moltke heirs have also sent many relics of the stern old warrior, including his baton, decorations and various addresses. The exhibits made by the royal house are much the same in character, embracing many historical documents and copies of treaties which have figured prominently in changing the geography of Europe.

NORWEGIAN BUILDING.

The front part of the building is devoted to offices and Commissioner Wermuth's reception room, which is quite as artistic as any in the palaces of his king. It is twenty feet square, with three broad plate glass windows looking out on Lake Michigan and the broad shore promenade. The ceiling is covered with

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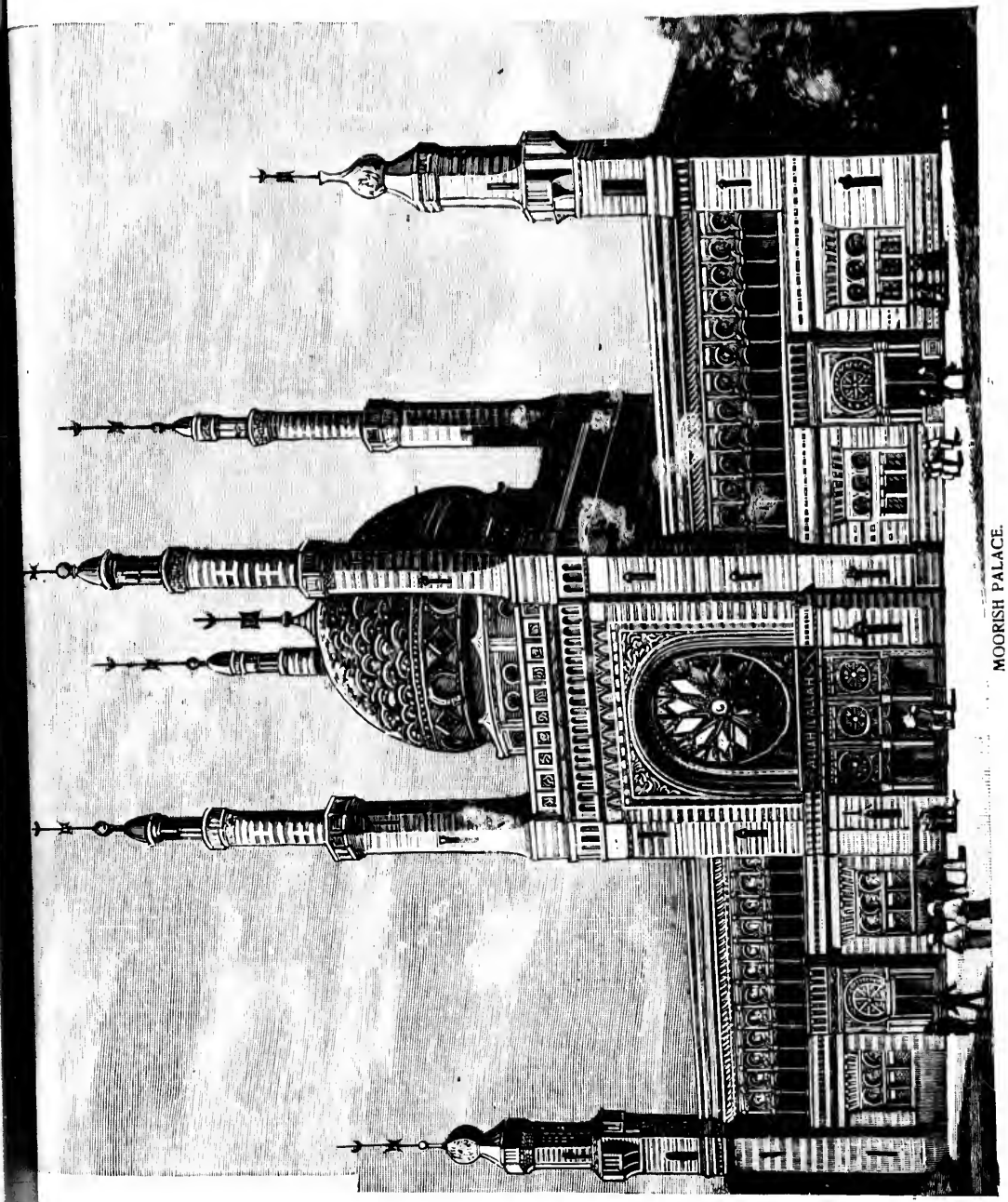


MOORISH PALACE.

carved oak made in two-feet squares, and from each corner of each square depends an ornament which is gilded to relieve the dark color of the wood.

In the center is a painting representing a sunrise which was done in Germany for this special room by a member of the Royal Academy, who denoted it on the condition that the painter's name should be kept a secret. Around the walls runs a wainscoting of carved oak, seven feet high. It is surmounted by a hand-carved panel, with figures representing the history of the empire. From the wainscoting to the ceiling the walls are frescoed in floral designs in bright colors, which offset the dark color of the oak. On the north side of the room is a porcelain fireplace which runs to the ceiling. The color is dark blue, and over the grate is a single tile four feet long by one broad, representing a wedding party in winter in the olden times.

The furnishing of the room is old style. The carpet is made in keeping with the woodwork by one of the famous German factories, and the upholstered furniture is of the style now long out of vogue. Scattered about are several desks made to correspond with the same period as the furniture.

Between the windows is a gilt hall clock, ten feet high. It is one of the most artistic bits of furnishing in the room. Four feet above the base rams' heads are set in each corner, and from that point to the top, the design is after one of the spires of the Strasburg cathedral. The dial is unique, in that each of the numerals is painted on an oval piece of ivory cut in a triangular shape, the point at the center.

Right here it may be mentioned that a portion of the material used in the construction and in the inner decoration of the German building itself has been furnished by German firms for purposes of exhibition. Thus, the tiles on the roof—quite new of their kind in this country—of which there were used fifteen car loads alone, are an exhibit in themselves. So are the beautiful windows, the antique furniture and the ornate wooden ceilings in the reception-room of the commissioner and in the anti-chamber. So, too, are the handsome carpets and rugs that are spread on every floor and staircase in the huge structure—all contributed by large manufacturers in Wurzen, Saxony, in Schmiedeberg and Dueren, Prussia.

The top floor is cut up into a score of small rooms of all sorts of shapes by the many gabled roof. They are all utilized though as living rooms by members of the commissioner's staff, royal guards care takers and others whose constant presence is required about the building.

Costly as is the building—$150,000—it is by no means out of proportion to the appropriation, as the German Government has furnished the munificent sum of $750,000 for her display at the Columbian Exposition.

The land of the fiord and the Norsemen erected a curious structure, distinctly Norwegian in its idiosyncrasies. The pavilion is what is known as the Stavkirke style and is copied after the church houses they have been building in that country ever since the twelfth century.

There is a high lower story and a low upper story and, over all, a high gabled roof picturesquely irregular in design. A fine flagstaff tops the whole. But

what most gives a Norse aspect to this little building, which is but 26x40 feet in size, are the decorative figures projecting over the gables, heavy beams that curve upward and which are graven in grotesque shapes like the heads of dragons or serpents. These resemble more than anything else, the ancient prows of battle ships.

That is exactly what they are intended to be like. When the "Stav-kirke" type of architecture was originated, the Norse were the boldest navigators in the world. Their high penned galleys, with hideous figure-heads, ventured where none others dared to go. Those were the days of the vikings. So the Norsemen, being more at home in ships than in houses,patterned their houses after their ships. In effect the edifice portrays a quaint old church, a maze of gables, on which decorative figures represent the defiant ornamentations of the bows of viking ships. The whole composition is most romantic in its conception. The material used in the Norwegian pine wood, and the cost in the neighborhood of $10,000.

The timbers were all prepared at Christiana and brought to Chicago in framed cases. The building is chiefly used for the offices of the commissioners and as a rendezvous for Norwegian folks. All of the exhibits are in the main buildings and if it had not been that they were stirred up by all this Columbus hubbub to the remembrance that America was discovered by their own Leif Ericksen more than 800 years ago, they would probably have had no headquarters at the Fair at all.

The Swedish Government building is located to the northeast of the Fisheries not far from the Brizilian structure and between the lake and the lagoon. The space alloted to Sweden was triangular in shape and the building was made to conform to the space in order to utilize it to the utmost. A hexagon was inscribed at the center of the space and there the main hall was located.

The design of the building is partly the product of the architect's personal taste and fancy, but in working out the drawings he has to a great extent allowed himself to be guided by the style of Swedish churches and gentlemen's houses of the sixteenth and seventeenth centuries. As far as possible the characteristics of old Swedish architecture have been retained.

The building was constructed in Sweden, where it was temporarily put together. Afterwards it was taken apart and brought to Chicago, making twenty-one carloads of material. It cost $40,000 of the $100,000 appropriated by the Government. In the three corners are rooms of considerable size. Galleries run around the building. The main hall is sixty-five feet across, and the pitch of the cupola, which rises above it, is seventy feet, and above the cupola is the spire. The Swedish flag flies from the flagstaff above the spire, 150 feet from the ground. The entire area of the floor is 11,000 square feet. The lower part of the front wall of the building forms an exhibit of its own, consisting of modern brick, terra-cotta, and cement work from the most prominent manufacturers of Sweden. Exhibits of steel, iron, clay, cement, wood pulp, porcelain and wick are shown in the building also. The remainder of the building is entirely of wood, all the work being done by the Eskelstuna Iraforadlingsaktiebolag in Sweden. Following the old Swedish fashion,

the whole of the roof and the walls are covered with shingles. The outside of the woodwork is impregnated with a preserving liquid to prevent decay.

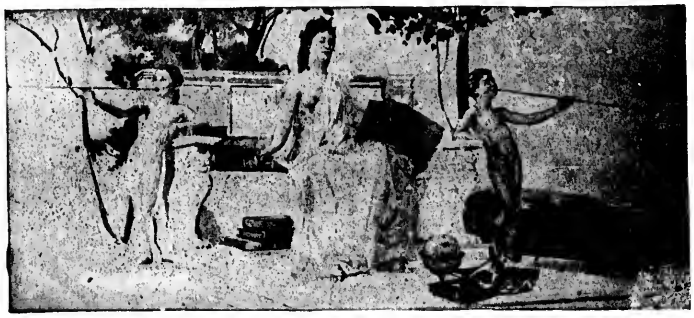
The inside of the pavilion is painted in light colors and richly decorated with bunting, coat-of-arms and crests. A fine exhibit of the world-famed Swedish iron ore is made. A display of the manufactured products of iron, china goods, and glass products are well represented in the pavilion. There is also a liberal space for gold and silverware and wood pulp products. A further attraction is the excellent representation of a genuine Swedish home with beautiful suites of furniture and highly artistic drapery.

Exactly opposite the main entrance of the building is a large picture of the capital of Sweden, "The Venice of the North," with its famous royal castle. Wax figures stand in front of this picture dressed in the picturesque garb of the Swedes, and to one side is a panorama of Swedish landscapes, while the other side is occupied by a Swedish peasant's cottage.

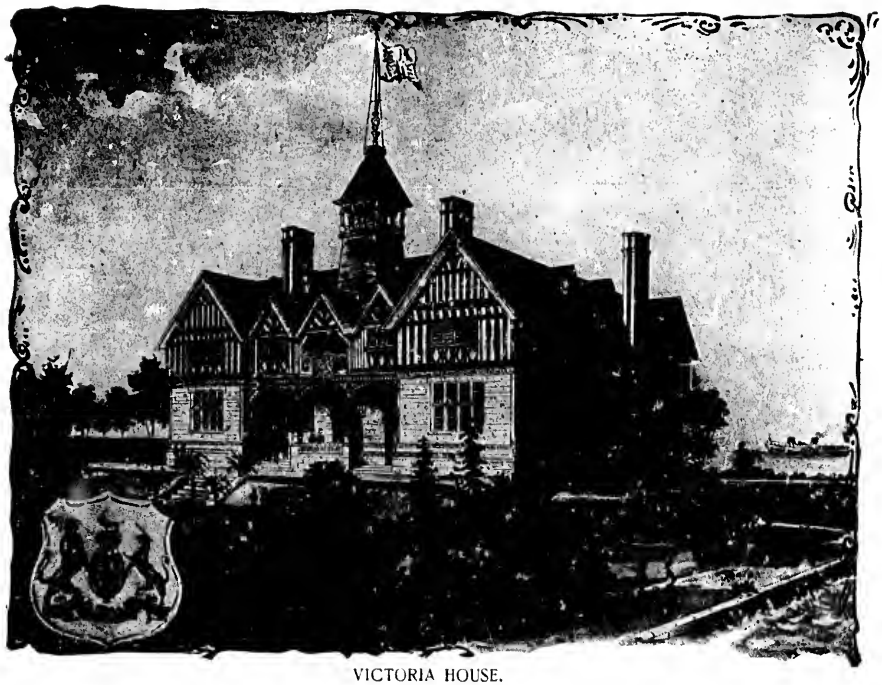
The outdoor sports-exhibits are skates, snowshoes, sleighs, canoes and yachts. A carefully executed bust of Gustavus Adolphus II. has also been placed in this room. In the galleries are gathered exhibits illustrative of the school system, which are admittedly of the first rank. Embroideries and needle work displays attract lady visitors, who also have seen the Swedish women's work in the Woman's building under the patronage of Her Majesty the Queen of Sweden and Norway.

The Swedish cafe people have brought with them a pleasant old-world custom of setting tables for their guests around under the trees on the green turf, where the cool winds of heaven may fan their fevered brows and frappe their soup before the waiter gets around with a spoon to eat it with—for of all leisurely creatures under the sun the Swedish waiter takes the lead. A couple sat down at one of these out-of-door tables one day, and after due deliberation a waiter appeared and took their order; then he disappeared. Just as the two were giving up all hope he came back with part of the order and set it down. After an interminable wait his nature prompted him to bring bread. The knives and forks appeared next, the order of procession impressing his charges with the idea that eating a Swedish meal was like reading Hebrew, and it was necessary to begin at the end and work forward. When everything was on the table, and in response to repeated tearful entreaties he had even brought beer, he made another disappearance that threatened to be final. The couple finished their meal, chatted pleasantly for awhile, had a quarrel and made it up, talked in a desultory fashion about the Fair and the weather, and looked for the waiter high and low. Finally the man caught another waiter and tried to send him after the first. After the man had minutely explained what he wanted the waiter said he didn't speak English. Then the woman came to the rescue. "Let's just get up and walk off, then they'll chase us, and you can pay," she suggested. "All right," said the man, who was becoming desperate. They walked off a few hundred feet and not a soul moved. Then the man came back, and as he was returning caught sight of his waiter around a corner of the cafe. "Ah," said the waiter with a beaming smile, after the man had in-

formed him in a vindictive manner that he wished to pay his bill. "Ah, I thought you had gone; I thought you would come back to-morrow, eh?" "Well, you've got a heap of confidence in human nature," said the man as he fished around his pockets for an extra dime. "I want to give you that," he said, "and I want to impress it on your mind what it's for; it's for your inattention."



LEARNING—BY IDA J. BURGESS.
Decoration of Reception Room of Illinois Building.



VICTORIA HOUSE.

CHAPTER II.

GREAT BRITAIN'S VICTORIA HOUSE.

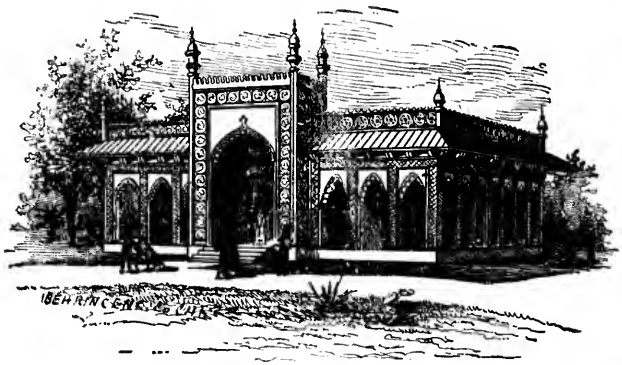
The More You See It the More You Like It—A Majestic but Not Gaudy Interior—Double Sweeps of Staircase—A Fine but Subdued Collection of Furniture—Carved Oak that Reminds One of the Times of Good Queen Bess—Associations that are Halos—The East Indian Building—Tantalizing Shawls and Carpets—Brocades from Madras and Benares—A Great Collection of Tapestries and Embroideries.

GREAT BRITAIN has put $125,000 into an insignificant-looking structure, which is located on a little peninsula quite isolated from the other "courts." The big guns of Uncle Sam's war ship point directly towards John Bull's bandbox, yet the Englishmen seem content with their headquarters. The building is called Victoria House, and at a distance looks inferior to the other foreign buildings. But as soon as one enters and inspects it he finds that it is quite English in its quiet but splendid elegance and comfort. From the outside one would wonder where all those golden guineas were put; and so he might from the inside, if he were a superficial observer. But a careful inspection will easily account for the expenditure of that liberal sum. Victoria House is said to be a good sample of an ordinary half-timber country house in England of the Elizabethan period. The entire interior, including woodwork, ceilings, wall-paper, and carpets, was brought from England, and its different parts are copied after a number of famous English country seats. The hall and staircase are from Haddon Hall, the residence of Lord Hardwicke, in Cheshire; the ceilings are from Queen Elizabeth's palace at Plas Mawe, in Wales; the reception-room is from Crewe Hall, in Staffordshire; the library is from Eton Hall, near Chester; and the dining-room is from Campden House, Kensington, the residence of the Duke of Argyll. It would be useless to describe its grand fireplace and its $2,500 sideboard, for these and all of its superb appointments must be seen to be appreciated.

Probably never was so perfect a collection of furniture inclosed within four walls as forms the embellishment of Victoria House. Histories and associations float around the carvings like a halo. In almost every case the furniture is a a reproduction of the contents of a mansion with a tale to tell. The gargoylelike heads that peer from the corners of tables, the friezes of carved oak leaf, the quaint, fantastic figures with their wooden smiles and frowns recall each and all a bygone time before men were too busy to find comfort in the art of their everyday life.

The grand hall, with its double sweep of staircase, has almost reached its maturity. Three centuries ago good Queen Bess, with her courtiers choked in their ruffs and her dames in the stern discomfort of the Elizabethan corset, swept up just such a staircase as that at Plas Mawe in north Wales. All around are chairs and tables with a pedigree. In the center of the hall is a table to be venerated, for Queen Victoria possesses just such an article of furniture in her castle of Windsor. Her majesty, like one of her predecessors on the throne, has a penchant for round tables. By a novel device the table is as expansive as a piece of chewing-gum. Her majesty can entertain a few relatives at her traditional mutton and rice pudding, or she can preside over a court banquet at the same table. And still it will retain its sociable rotundity.

Everywhere through the building the monogram V. R. indicates the reverence shown the monarch. Wherever Queen Bess is not recognized in the pattern of the chairs, Queen Victoria's monogram is written large. On either side of the hall V. R. is set upon the two big fenders. The mantels are of dark oak elaborately carved. Victoria House is designed mainly for the headquarters of Sir Henry Trueman Wood, the Secretary of the Royal British Commission, and Edmund H. Lloyd, its Assistant Secretary and General Superintendent. But, incidentally, it dispenses hospitality to distinguished subjects of Queen Victoria who visit the Exposition, though Mr. Lloyd is authority for the statement that no dignitaries are expected.



EAST INDIA BUILDING.

The East Indian building is situated just north of the Fisheries building, near Sweden's brick-front building and the Haytian exhibit. While it is called the Indian Court, it was really erected through the public spirit of a few wealthy tea merchants of Calcutta, who were unwilling to see Hindoostan unrepresented this way. It is a one story pavilion of staff, of generous dimensions, and in the characteristic East Indian style of architecture, and is easily recognized by the gold-canopied entrance and its quaint beauty. It will be observed that the buildings of Great Britain and her colonies are appropriately placed near to and in line with one another. The building is literally packed with beautiful exhibits, and every foot of available space holds something rare and interesting. It is also claimed that every exhibit there was made by hand. The exquisite wood and ivory carvings and artistic repoussé brass and copper ware show in themseves that no machine had ever

touched them, but it is difficult to believe that the heavy carpets, woven in the most intricate designs, are from hand looms instead of Jacquards. An astonishing variety of fabrics are shown in silk and cottons, as well as mixed silk and cotton, both printed and embroidered. Wax-printed cloths of Peshawur and Delsa, and tinsel and glass decorated stuffs of Poona and Satara, are exhibited for the first time in this country. The wax-printed cloths are made by applying a mixture of melted lac and beeswax with a wooden stick. The designing is done free-hand, and after the mixture has been applied, finely powdered mica is sifted over the design and left to dry.

Many Cashmir shawls which are not embroidered, but made on the loom, are piled in cases with silk sarees from Surat and Madras, with silk and brocade edgings, worn by Hindoo women of the upper classes as dresses. Phulkaries or silk embroideries made in the Punjab and on the Hazara frontier, Rampore chodders or ring shawls, so fine and soft that one measuring two yards wide can be passed through an ordinary finger ring, and brocades or kinkabs are other fabrics which are heaped up as though they were job lots in a country store instead of the costly productions of artists.

On the floor is a breech loading cannon which is 400 years old, and there is leaning against the wall a matchlock fifteen feet long, made a couple of centuries ago. Beside the general exhibits there are native state exhibits made at the personal request of the nizam of Hyderabad, the maharajah of Mysore, the maharajah of Jeypore, the maharajah of Patiola, the maharajah of Kapurthala, the maharajah of Karauli, the rajah of Jhina, the maharajah of Travancore, the Sawantwadi chief and the rao of Kutch. It is not used as the headquarters of government officials, but rather as an exhibit of teas and a sort of tea exchange.

The whole floor is filled with dainty little tea tables, with two or three chairs around each. There any one who has a tired feeling can sit down and order a cup of tea, with cream and loaf sugar to boot, without a cent to pay as has been mentioned heretofore.

These tea men themselves are an attraction, as they are natives of India, of the servant or lowest caste, and are dressed in brilliant scarlet robes, with gold embroidery. Still more interesting, however, are the bazaar assistants, who occupy the upper floor of the building with a most wonderful exhibit of the art manufactures of India. Beginning at the bottom, socially, one of these is a Hindoostanee, of the servant class, who is a convert to Christianity and bears the Christian name of Sam. One of them is a Mohammedan from Bombay. Then there is a handsome fellow, of the writing caste, from Benares, the Rome of India, whose name is Rameshwar Dial.

Coming higher up there is a rajpoot of the warrior caste from Rajpootana, who is wrapped from head to foot in variegated silks, and nurses all the while an old rifle, ten feet long, that would probably burst the first time it was fired. Then there are two others of the warrior cast called Kahatrees from the Punjaub or Five Rivers. Finally, there has been brought nothing less than a live Brahmin

and Pundit from Delhi, said to be the only Brahmin that ever came to America. His name is Gobindpurshad Shookul.

The building was dedicated with the peculiar rites of the land of Brahma and Buddha, performed by the turbaned natives, who came with silks, rugs, burning incense, carved woods and other marvelous things that are crowded in the building, and with the hideous Hindoo Gods and grotesque images of minor deities leering down upon them, the jovial crowd of Americans who participated in the ceremonies experienced a new sensation.

INDUSTRY—BY PAULINE A. DOHN.
Reception Room Illinois Building.

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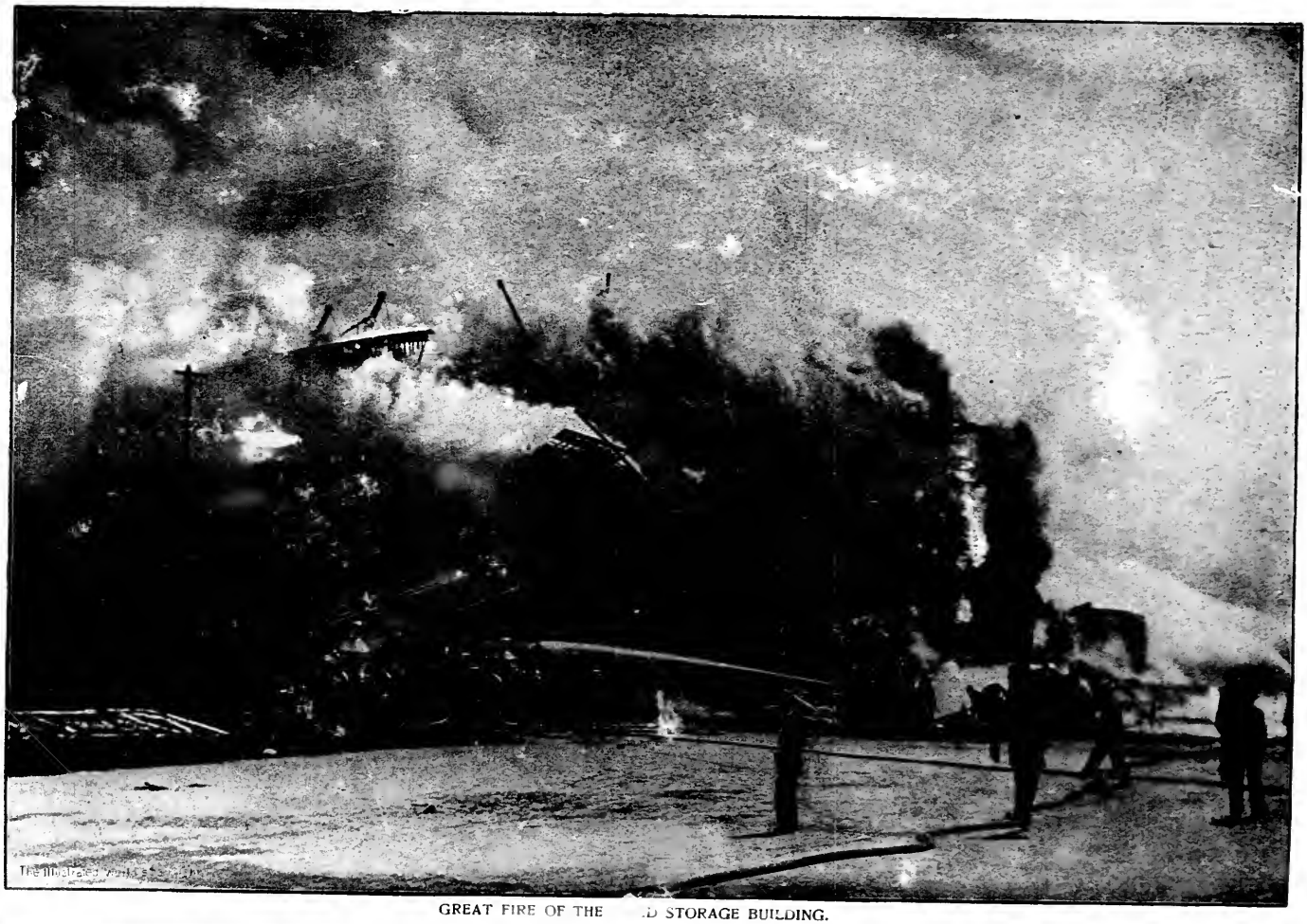

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CHAPTER III.

PAVILIONS OF FRANCE AND SPAIN.

The Sword of Lafayette—A Reproduction of the Room in the Palace at Versailles in which Franklin was Received—A Large Number of Contributions from the Duke of Veragua—Letters Patent to Columbus from Isabella—Commission from the King and Queen—Many Interesting State Papers.

THE pavilion of France, at the north end of Jackson Park, is one of the most interesting of the many foreign buildings in the group. It is not so stately nor so pretentious as some of its neighbors, but it is never passed by by sightseers. All around it are floral beauties placed there in May by one of the young republic's most eminent florists—M. Jules Lemoine. Upon the opening of the French pavilion, Camille Kranz, the Commissioner-General of France, Consul Edmund Bruweart, Morris Monthiers, the Assistant Commissioner-General, and August Masur, attaché, received the guests in the room which is used as the museum for souvenirs of the American War of Independence now owned in France. The room itself is one of the attractions of the French pavilion. It is an exact reproduction of the famous salon in the palace of Versailles where Louis XVI. received Ben Franklin, the special ambassador from the American colonies, and with him signed the treaty which secured for the United States the active aid and coöperation of France. Director-General Davis, President Higinbotham, the various chiefs of departments, nearly all of the foreign commissioners, the World's Fair Directors and National Commissioners who had remained in the city, members of the Commercial club, and many society people of Chicago were included in the guests present. Chief among the treasures in the room is the sword presented by the Colonial Congress to Lafayette in 1778. It has a hilt of solid gold, beautifully engraved, and a scabbard of the same with medallions, each one representing some scene of the Revolutionary War in which Lafayette had been engaged. The Damascene blade, which was in the sword at the time it was given Lafayette, was ruined by rust while the sword was buried during the reign of terror in 1793, and the blade which took its place is made from steel taken from the old Bastile, inlaid with gold, a present from the City of Paris to Lafayette in recognition of his services during that time. Another sword, equally handsome, a present from the City of New York to Lafayette on the occasion of his visit to the United States in 1824, occupies a place beside the other.

Two crystal urns, the first cut glass made in the United States; a large vase, presented to Lafayette by the midshipmen of the Kearsarge; two rings, each of which contains locks of hair from the heads of Gen. Washington and Martha Washington; two pistols left to Lafayette by Washington in his will, epaulets worn by Lafayette during the war, and the decoration of the order of Cincinnatus given Lafayette by Washington, are among the other interesting objects in the center case. There are books, original autograph letters from Washington, Jefferson, Madison, John Adams and John Quincy Adams, and many other articles of priceless value.

The Spanish Building which is modeled after the Casa Lonja of Valencia, shows only parts of the original building, the column hall and the tower having been reduced in proportion to three-fourths of the original, which was erected before the date of the discovery of America. The structure has a frontage of 84 feet 6 inches. There are three floors, two of which are occupied by the Royal Commission. The space is distributed in three naves longitudinally and five naves transversely, corresponding to eight pillars in the center, with quarters and halves in the lateral walls and corners, forming in all fifteen vaults. The ornaments represent the church, magistracy, military, and the arts; also the agricultural, commercial and industrial pursuits of the kingdom. The material is wood and staff.

FRENCH BUILDING.

The Spanish building was formally opened by Eulalia in June. The Duke of Veragua contributed the following, most of which may be seen in the Spanish Building:

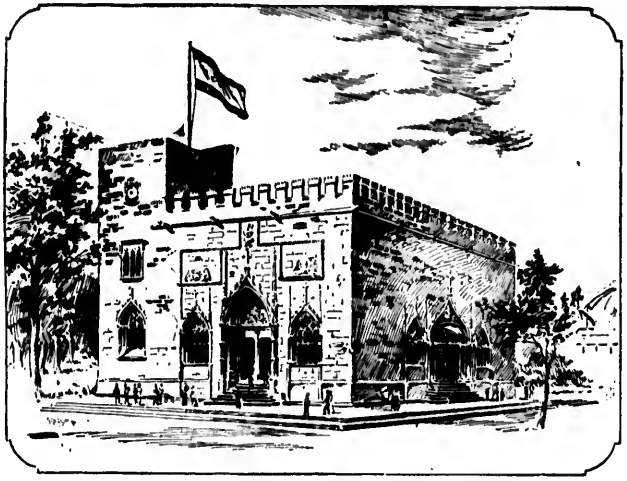
1. The commission of Columbus. The original commission given to Columbus by Ferdinand and Isabella upon his departure for the first voyage, dated Granada, April 30, 1492, appointing him Grand Admiral of the ocean seas, Vice-King and Governor-General of all the lands that he should discover.

2. Royal letters patent from the sovereigns of Spain granting licenses to the persons accompanying Columbus on his first voyage. Dated Grenada, April 30, 1492.

3. Royal letters patent from the sovereign of Spain commanding the inhabitants of Palos to furnish Christopher Columbus with two caravels for his first voyage. Dated Granada, April 30, 1492.

4. Royal letters patent from the sovereigns of Spain commanding the inhabitants of Palos to furnish Christopher Columbus everything necessary to equip the caravels for his first voyage. Dated Granada, April 30, 1492.

5. Royal letters patent from the sovereigns of Spain exempting from taxes supplies needed for the fleet of Columbus on his first voyage. Dated April 30, 1492.



SPANISH BUILDING.

6. Royal letters patent from the sovereigns of Spain ordering that Christopher Columbus may take without charge anything needed for his first voyage. Dated May 15, 1492.

7. Royal letters patent from the sovereigns of Spain granting power to Christopher Columbus to seal and deliver stores of provisions in their names. Dated May 15, 1492.

8. Royal letters patent from the sovereigns of Spain commanding that Christopher Columbus be allowed to pass freely through ports, cities, towns and villages. Dated Barcelona, May 20, 1492.

9. Certificate of Roderigo Perez, notary public in the City of Isabella, Santo Domingo, Dec. 16, 1495, concerning the contract made by the sovereigns of Spain with Christopher Columbus in the Town of Santa Fé de las Vegas de Granada, April 17, 1492.

10. Royal letters patent from the sovereigns of Spain authorizing 300 persons to be taken by Columbus on his second voyage. Dated Burgos, April 23, 1493.

11. Royal letters patent from the sovereigns of Spain commanding Columbus to prepare a fleet for his second vovage. Dated May 23, 1493.

12. Royal letters patent from the sovereigns of Spain commanding captains and masters of vessels to recognize Admiral Christopher Columbus as Captain-General, and to obey him in every particular. Dated Barcelona, May 28, 1493.

13. Royal letters patent from the sovereigns of Spain authorizing Christopher Columbus to appoint three persons for the offices of government in the lands he should discover. Dated Barcelona, May 28, 1493.

14. Instructions for his second voyage given to Columbus by Ferdinand and Isabella, May 29, 1493.

15. Original memoranda written by Christopher Columbus to the sovereigns of Spain concerning the money required for the compensation and subsistence for six months of the 300 people who were to accompany him on his second voyage.

16. Bull of Pope Alexander VI granting to the sovereigns of Spain all lands discovered by Christopher Columbus. Dated at Rome, May 4, 1493.

17. Letter from the sovereigns of Spain to Columbus assuring him of the peaceful intentions of the King of Portugal. Dated June 12, 1493.

18. Letter from Queen Isabella to Columbus recommending Juan Aguado to a good position in his fleet. Dated June 30, 1493.

19. Letter from the sovereigns of Spain to Christopher Columbus recommending the appointment of Sebastian de Olano as Collector in Indies. Dated August 4, 1493.

20. Letter from the sovereigns to Christopher Columbus urging him to hasten his departure to the Indies, Aug 18, 1493.

21. Letter from Queen Isabella to Columbus inclosing a copy of a book he had left with her, asking him to send her a certain sailing chart, and urging him not to delay his departure. Dated Sept. 5, 1493.

22. Letter from the sovereigns of Spain to Christopher Columbus asking his opinion in regard to a certain document which had been prepared in reply to the King of Portugal. Dated Barcelona, Sept. 5, 1493.

23. Letter from the sovereigns of Spain to Christopher Columbus concerning certain expeditions of the King of Portugal and informing him that the book which he had left with them would be forwarded to him by Don Juan de Fonseca, June 1, 1493.

24. Royal letters patent from the sovereigns of Spain directing Christopher Columbus to return to the Indies. Dated Modina del Campo, June 22, 1493.

25. Decree of King Ferdinand and Queen Isabella granting to Columbus an annuity of 10,000 maradevis, to be paid from the tax upon the butcher shops of Cordova during his lifetime. Dated at Valladolid, Nov. 18, 1493.

26. Books which contain certified copies of royal letters patent from the sovereigns of Spain granting to Christopher Columbus all the rights, titles, dignities and regalias enjoyed by the Admirals of Castile. Copies of royal letters patent in towns established in Santo Domingo. Contracts of Columbus with the sovereigns of Spain.

27. Instructions from the sovereigns of Spain to Columbus concerning his second voyage, dated Barcelona, March 30 and September 15, 1493; Medina del Campo, April 19, 1494; and Sergovia, Aug. 16, 1494.

28. Letter from the sovereigns of Spain to Christopher Columbus acknowledging with great gratification the receipt of letters by the hands of Antonio de

Torres, and requesting him to send Bernal Diaz de Pisa, accountant of the expedition, to Spain. Dated Medina del Campo, April 13, 1494.

29. Letter from the sovereigns of Spain to Christopher Columbus, dated Sergovia, August 15, 1494, asking certain information and informing him of an agreement with the Kingdom of Portugal.

30. Decree of King Ferdinand and Queen Isabella granting a coat of arms to Columbus. Dated June, 1494.

31. Letter from the sovereigns of Spain to Christopher Columbus congratulating him upon his return from his second voyage and requesting him to report to the court at once. Dated July 12, 1496.

32. Commission as Adelantado Mayor granted to Christopher Columbus by the sovereigns of Spain. Dated at Medina del Campo, July 22, 1497.

33. Letter from the sovereigns of Spain to Christopher Columbus about gold, pearls and other treasure obtained in the Indies. Dated March 30, 1497.

34. Will of Christopher Columbus conferring the right of succession upon his son, Diego. Dated Feb. 22, 1498.

35. Memorandum submitted by Christopher Columbus to the Council of the Indies concerning his arrest and imprisonment, and declaring his innocence of the charges made against him.

36. Letter from the sovereigns of Spain to Christopher Columbus containing instructions concerning his fourth voyage. Dated Valencia de la Torro, March 19, 1502.

37. Letter from Christopher Columbus to his Holiness the Pope of Rome. February, 1502.

38. Letters of Christopher Columbus to his son, Diego, dated Nov. 21, 1504; Nov. 28, 1504; Dec., 1504; Dec. 3, 1504; Dec. 13, 1504; Dec. 21, 1504; Dec. 29, 1504; Jan. 8, 1505; Feb. 25, 1505; Dec. 5, 1505. Memorial of Christopher Columbus to the sovereigns of Spain in behalf of his son Diego.

39. Letters from Christopher Columbus to the Rev. Father Don Gaspar Gorricio de las Cuevas, dated April 4, 1502; Sept. 4, 1505; July 7, 1503; Jan. 4, 1505.

40. Letter from King Ferdinand V. to Diego Columbus, dated Naples, Nov. 26, 1506.

41. Commission as Adelantado Mayor of the Indies. Granted by the sovereigns of Spain to Diego Columbus. Dated Valladolid, June 16, 1515.

42. Authenticated copy of the will of Diego Hernandes, who accompanied Christopher Columbus on several voyages. Dated 1536. This will was important evidence to sustain the claims made by the family of Columbus upon the crown of Spain.

43. Commission as Admiral of the Indies. Granted to Don Luis, the grandson of Christopher Columbus. Dated May 24, 1536.

44. Letter from the King of Portugal to Christopher Columbus. Dated Avis, May 29, 1488.

45. Ordinances issued by sovereigns of Spain to Christopher Columbus and the Court of Santo Domingo for the clearance of certain materials, 1497.

All of these documents are either written by Columbus himself or signed by Ferdinand and Isabella.

COMMISSIONERS FROM FOREIGN COUNTRIES.

1. Prof. Vulks I. Spopoff, *Bulgaria.*
2. L. Weiner, *Cape Colony.*
3. Phra. Suriya Nuvatr, *Siam.*
4. Dr. Francisco Bustamante, *Venezuela.*
5. E. Spencer Pratt, *Persia.*
6. George Birkoff, *Netherlands.*
7. Wm. E. Rothery, *Liberia.*
8. Col. M. N. Arizaga, *Ecuador.*
9. Milton O. Higgins, *Curacao.*
10. T. Paredes, *Columbia.*
11. Sr. D. Manuel M. de Peralta, *Costa Rica.*
12. Dr. Emil Hassler, *Paraguay.*
13. J. S. Larke, *Canada.*
14. Arnold Hollinger, *Switzerland.*
15. Signor V. Zeggio, *Italy.*

CHAPTER IV.

CANADA AND NEW SOUTH WALES.

The Provinces of Ontario and Quebec Handsomely Represented—Native Canadian Shrubbery Abundant—Highly Polished Canadian Woods—Various Commercial, Scientific, Agricultural and Educational Articles Shown—The Classical Pavilion of New South Wales—A Credit to that Far-Off Country.

STANDING upon a site of nearly 6,000 square feet is the Candian Pavilion, only a short distance from the United States Battleship, opposite Victoria House. The view from the "look-out" on the tower of the pavilion is perfect. It extends on one side to where the restless waters of the great lake seem to kiss the distant horizon; and on the other side takes in the magnificent pier, the architecturally beautiful Peristyle and Music Hall, with glimpses of the historic Convent of La Rabida, the great Manufactures Building, the United States Government Building, the Fisheries Building, and many of the fine and expensive edifices erected by foreign nations. The pavilion has three entrances: a main or front entrance, facing the southeast, and two end entrances on the east and west, respectively. The front entrance is through the tower, and has three doorways. Opposite this main entrance is the grand stairway, beneath and in the rear of which are numerous lavatories.. In the entrance hall are located the postoffice, the telephone office and an intelligence office. In the latter are kept registers giving all possible information to visiting Canadians as to lodgings, board, the whereabouts of friends in Chicago, and other information that may be useful to Canadian visitors. Off the entrance hall is the reception room. Over five hundred Canadian newspapers are on file here. To the left of the main entrance are two handsome offices for the Dominion Commission, while the other four offices on this floor are occupied by the commissioners from the provinces of Ontario and Quebec.

On the first floor are two more offices for the Dominion Commission, four for commissioners from different provinces of Canada, a committee room and a large parlor for the use of the whole staff.

On the second floor are the tower room and the smoking room, and in the attic above is the dormitory for the guardian of the pavilion.

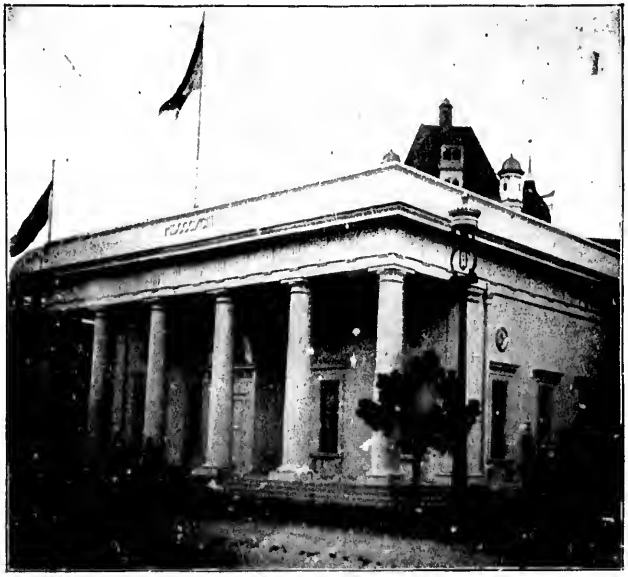
As the sum appropriated for the erection of the pavilion was limited, a plain style of architecture had to be adopted. Running around all sides of the building is a veranda ten feet wide, with a balcony above of the same width. The balcony

SWEDISH BUILDING.

CANADIAN BUILDING.

is supported by twenty-eight Tuscan columns. The walls at the eaves of the roof are finished with a bold dental cornice. The pavilion is covered with a low pitched roof, partly hidden by a wall. The tower, as it issues through the roof is circular, and is divided into twelve panels; beneath these are detached pilasters. The walls are finished with a dental cornice, over which is an open balustrade. Over this is the "lookout," whence rises the flagpole, from which, from sunset to sunrise, proudly floats the Canadian flag.

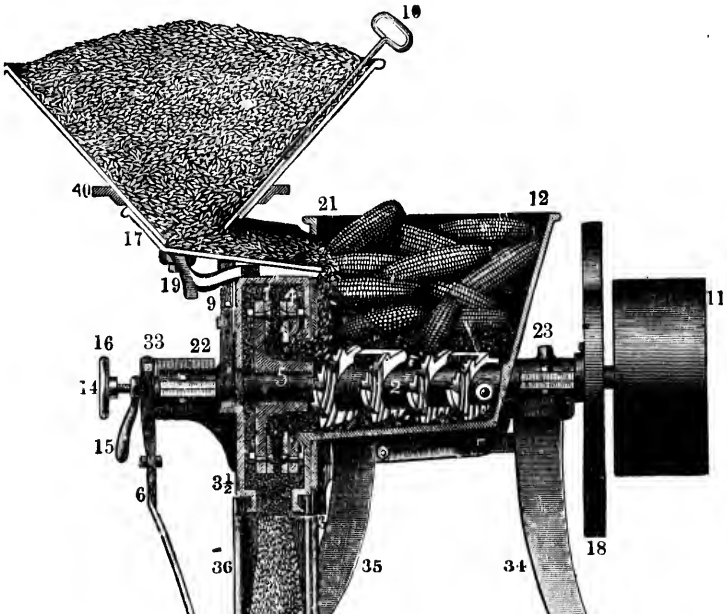
The walls and ceilings are finished with native Canadian woods, highly polished and showing the natural grain. Each province of Canada has furnished the native woods required to finish its individual rooms. Around the pavilion is a neat plot of ground covered with green turf, dotted here and there with native Canadian shrubbery and conveniently and artistically divided with serpentine roadways and walks. This building, with its furnishings and surroundings cost over $30,000. Various commercial, agricultural, scientific and educational articles are shown in the several departments from the provincial governments of Ontario, Quebec, Ottawa, British Columbia, Manitoba, Halifax, New Brunswick, Prince Edward Island, Northwest Territories.



NEW SOUTH WALES BUILDING.

The New South Wales Building is classical in design and ornamentation. It covers an area of 4,320 square feet, being 60x60 feet in exterior dimensions, with a portico 12 feet wide extending across the front. There is a flight of three steps leading to this portico and extending across the front and ends of the same. The roof of this portico is supported by six Doric columns, two feet and six inches in diameter, and twenty feet high, with a cornice, frieze and balustrade extending round the entire building. At each of the corners is a large Doric pilaster corresponding to the columns of the portico. The entrance is in the center of the portico front. All openings have molded architraves and cornices, and each window has a pair of molded modillions under it. The exterior of the building is staff. The central portion is occupied by a hall, thirty feet in width, and extending the entire

depth of the building. In the center is a polygonal dome thirty feet in diameter, the top being forty feet from the floor. This dome adds to the effect, light and ventilation of the whole, and is covered on the interior with ornamental staff. Arranged on three sides of the main hall are the various offices of the legation, eight in number.



QUAKER CITY GRINDING MILL—A. W. STRAUB & CO., PHILADELPHIA, PA.

CHAPTER V.

THE ATTRACTIVE CEYLON BUILDING.

A Mixed Architecture of Many Native Woods—Designs from Ancient Buildings—Figures of Sacred Birds and Animals—Ornamental Facades and Pillars—Fancy Designs in Ceilings and Walls—Carvings that Take One Back 543 Years B. C.—The Sacred Tooth of Buddha—Sun and Moon Symbols.

MANY thousands visit the Ceylon building daily—the principal court of which alone contains 18,706 square feet for exhibits. This large court stands to the north of the German building, fronting the lake. It is 162 feet in length. The pillars and such parts of the ends of the beams as are in view, and the four entrance doors, as also the central octagon, are beautifully carved in imitation of the carving found on the stone pillars and objects of art in the ancient city of Anuradhapura and other places of great antiquity. This court is a fine exhibit in itself. The minor courts are also made of the woods of the island, beautifully carved, and acknowledged by all who have seen them to be works of art. The main building of the court comprises a central octagonal hall with two wings facing respectively north and south. The court partakes largely of the Dravidian style of architecture in the design of its columns and adopted by the Cinghalese in their ancient temples throughout Ceylon. The details of this mixed architecture may be studied with advantage in the numerous temples and ruins scattered over Ceylon of which views are shown in photographs exhibited in the court. The court is constructed entirely of the beautiful native woods of the island. Some twenty thousand cubic feet of timber was felled for the purpose. The whole court is raised on a projecting basement some four feet above ground level, and is reached by four stairways highly carved, two leading into the central octagon and one into each of the wings. These flights of steps (of which an illustration is given) are adapted designs from the well-known stairs of many fine ruined temples to be seen at Anuradhapura and Polonnaruwa, the successive ancient capitals of Ceylon between 543 B. C. and 1235 A. D. The cobra-shrouded figures carved in bas-relief on the terminal stones, guarding either side of the approach, are termed *doratu-palayas*, or janitors. These guard-stones are always found at the foot of steps to vihares (shrines), etc., in the older ruins, to ward off evil.. The conventional lines on attached pillars at the side of the terminals are found equally with elephants and bulls on these

guard-stones at Anuradhapura and elsewhere. The figures on the face of and supporting the steps, the front edges of which have a small conventional pattern of the water-leaf ornaments, or *padma*, carved upon them, have been supposed to represent *yakkas*, a class of evil spirits, also placed here to avert ill. At the bottom of the steps is a large carved slab, semi-circular in form, termed a *sandakadapahana*, or moonstone, carved in bas-relief, to represent a lotus flower open in the center, and concentric bands of sacred geese, foliage, and figures of lions, elephants, horses and bulls in the outer ring. The carved balustrade on either side represents a *makara*, a fabulous beast, half lion, half crocodile. Arriving at the top of the stairs, the entrance to the building is through a handsome doorway having carved jambs of similar pattern to those of the Dalada Maligawa (the temple in which the sacred tooth of Buddha is deposited) at Kandy, and at the Ambulugala and Dippitiya vihares in the Four Korales of the Kegalla District of Ceylon. The continuous scroll ornament should be particularly noticed, also the intersecting double-foliaged scroll. The fancy design of leaf ornament spreading downward from the trunk of a woman's body, is here particularly handsome, and follows the line of the arch. The ceiling of the central hall is supported by twenty-four elaborately carved pillars, which are in two stages; the lower story supporting cross beams terminating in a carved bracket. Between the cross beams, and forming a capital to each pillar, are carved cross-bracket-capitals termed *pushpa-bandha;* they are carved to represent conventional drooping lotuses. The upper tier of these pillars, with their attached bracket-capitals, are carved in the form of a plantain flower, and the ornamentation on the face of the pillars is that of the *padama*, lotus ornament.

CEYLON BUILDING.

On either side of the central hall are colossal, figures of a sedent Buddha and Vishnu. The hands of the seated Buddha, are as usual, placed in the lap, the back

of the right hand resting on the left palm, and the crossed feet showing the sacred marks on the soles.

The figure of Vishnu, usually ranked as the second of the Hindu triad, is represented four-armed, the back pair of hands holding his discus and chank, with his vehicle, the winged *garuda* behind, and standing on a pedestal. The "lotus-god" is as usual, painted blue.

The whole building is enclosed with an ornamental facade, there being eight windows to each annex and four of double width to the central hall. The windows have architraves carved with the water-leaf superficial ornamentation, and under each window is a panel containing conventional and other designs in bas-relief. The upper part of the window is formed of an ornamental arch, carved with the same pattern as the architrave. The carved architrave terminates with a shoulder enriched with the creeper-knot ornament.

The whole exterior of the building is framed with satinwood, ornamented with Randyan scroll-work, and the roofs, which have large projecting eaves, are terminated at the eaves-line with valance tiles of a pattern found in frequent use in Kandyan buildings. All the roofs, which are covered with imitation pan-tiles, are framed with a break of line a little more than half way up the slope, which is especially characteristic of Kandyan architecture. The roofs over the central hall and tea room rise in three tiers, and the whole is surmounted by a *kota*, or spire, terminating in a hammered brass finial exactly similar to the one surmounting the Temple of the Sacred Tooth of Buddha at Kandy. All the ends of projecting beams, or *gones*, are highly carved, and the terminations of the rafters are cut in the manner and form peculiar to the architecture of the building.

Of the panels under the windows, that under the third window from the south-east corner is a representation of the *Ira-handa*, the sun-and-moon symbol of the Four Korales, with the lion holding two daggers.

The exhibits are ranged round the hall and annexes in handsome cases made of satinwood and ebony, the lower panels having the form of the *torana*, or Cinghalese arch. Other exhibits are disposed round the walls and pillars of the building.

Close to the court and immediately to the northwest is a building in the form of a dagaba, set apart for the use of the Ceylon court staff. It is an exact representation of the Ruwanveli dagaba at Anuradhapura, as taken from a model carved in stone which stands within the *pradakshina*, or "procession path." Ruwanveli dagaba was commenced by King Dutugamunu in the year 161 B. C., and completed 137 B. C. It is constructed of solid brickwork, rising to a height of 150 feet, with a diameter at the base of 379 feet. The original outline of the dagaba was destroyed by the Malabars in 1214 A. D.

A writer for the London *Times* has truly said: "A pretty and attractive thing is the Ceylon building and especially its grand court. The main room of the grand court is 160 feet in length and above it, reached by a spiral stairway of handsomely carved woodwork, is the tea-room, where nearly a hundred varieties of tea are shown, together with the processes of culture and classifying. The exhibits consist of work of arts, manufactures, the products of the island, jewelry and curios,

with an interesting exhibit presented by the sultan of the Maldives. The interior of the court is in the Dravidian style of architecture adopted by the Cinghalese in their ancient temples. Twenty-five varieties of brilliantly colored wood are used in the decorations. The carvings are after designs in the ruined temples of Anuradhapura and Polonnaruwa, which were capitals of Ceylon between 543 B. C. and 235 A. D. Scenes from the life of Buddha are portrayed on panels and frescoes. A carving of exceptional interest shows Buddha overshadowed and seated on the coils of the seven-hooded cobra. On either side of the north wing are colossal figures of Buddha and Vishnu. The hands of the figure of Buddha are crossed in the lap and the feet show the sacred marks. The figure of Vishnu, second in rank in the Hindoo triad, is represented four-armed, the back pair of hands holding his discus and chank with the winged garuda behind. The 'lotus god' is painted blue. The whole building suggests the Hindoo religion."

THE GREAT BUDDHIST GOD.

CHAPTER VI.

THE OTTOMAN PAVILION.

The Resources of Turkey Shown in Twelve Sections—Textile Fabrics—Gold and Silver and Other Minerals—Munitions of War, Electrical Appliances and Many Antiquities—Agricultural Products—Silks and Dye Stuffs—An Imperial Ottoman Coat of Arms—Damascus—The Hunkhar Casque—Damascian Carved Woods—The Ottoman and Other Oriental Manufactures.

IN the Turkish building, which adjoins that of Brazil on the east and lies between the Fine Arts and Fisheries buildings, is the principal exhibit of the Turkish Empire. In this structure a miniature exhibit is made of the resources of the Ottoman Empire, consisting of twelve sections, in which are shown textile fabrics, gold, silver and other minerals, munitions of war, electrical applicances, antiquites, all the natural agricultural products, silks, dye-stuffs, and, in brief, small samples of nearly every industry of the country. Exhibits are also made in the department of manufactures, consisting principally of Oriental rugs and filigree jewelry; in the department of transportation exhibits, in which caiques, sedan chairs, bullock carts, etc., are shown, and in the Woman's department, where embroideries made by the women of Turkey are an interesting feature

The Turkish building is in the Moresque style and is in imitation of the Hunkhar Casque (or fountain) of Sultan Ahmed III. which is opposite the Babi Humayon in Constantinople, and which corresponds with the capital at Washington, the seat of government. The structure is eighty by one hundred feet in dimensions and is surrounded in the center by a dome. There are also smaller domes at each of the four corners. The exterior is covered in Damascian carved wood, made especially in Damascus and brought here for the purpose. The interior is a large exhibition hall, decorated with tapestries. There are small exhibition rooms in each of the four corners, and the office of the commissioners is in a separate building to the rear of the main building.

On June 26th his eminence, Ibrahim Hakky Bey, a handsome Armenian noble, and the Imperial Ottoman Commissioner-General to the Columbian Exposition, and Ahmed Fahri Bey, Imperial Ottoman Commissioner, gave a reception from 3 to 5 in the office building, and during the same hours the exhibits in the pavilion were thrown open for private view. A full uniformed orchestra discoursed popular music, with interspersed classical numbers, and attracted a large crowd to the pavilion. Visitors were bowed to the door of the pavilion by a double

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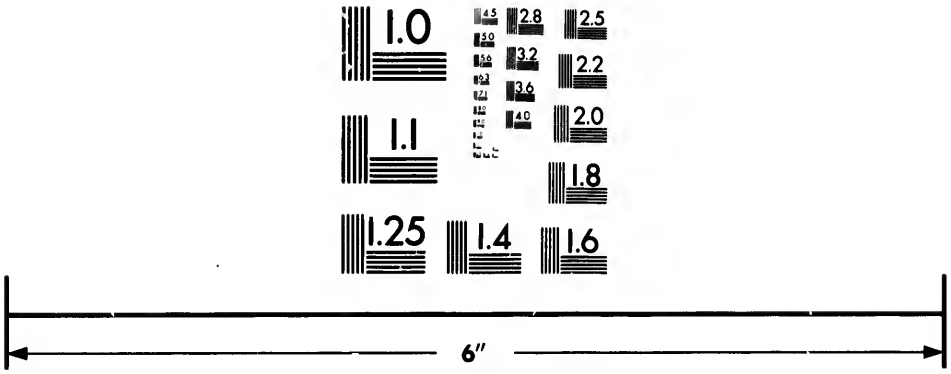

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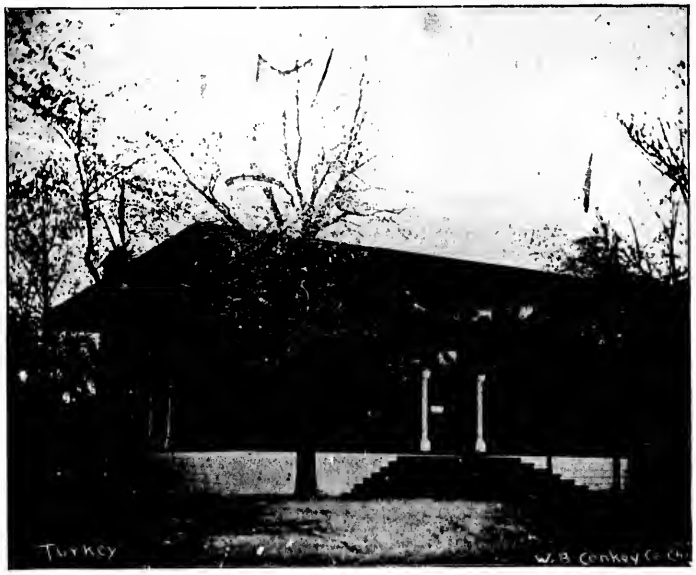
line of soldiers from the desert in the flowing and glaring garb of the Arab, while at the door stood two American giants in the uniform of the Sultan's Guard, a bright red, bedecked with gold and silver filigree ornaments.

Refreshments were served in the area between the pavilion and office building, and in the latter Hakky Bey made a characteristic and patriotic speech. The Turkish exhibits are a revelation in the line of scientific instruments and naval structure. The implements of navigation and electrical appliances are crude compared with those of American make, but they show that the Ottoman is trying to



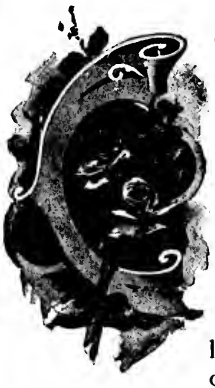
TURKEY BUILDING.

keep abreast of the times. In gold and silver filigree work and in jewels some very handsome exhibits are made by the Sultan's jeweler, Tchaiboukdjian. One especially handsome piece shows the Ottoman royal coat-of-arms, and another the monogram of the Sultan, Hamidie. The famous tower of Galata is shown in miniature, and several series of magnificent photographs of scenes in Constantinople, and on the Bosphorus and of royal palaces are exhibited. Antiques, fine Oriental silks, and examples of fine needlework and embroideries on the finest of fabrics, palm-oil soaps, Yemen coffee, wools from Caucasus, silks in all grades from the cocoon to the finished product, Damascus cloth rugs, and other samples of Oriental manufacture make up the interesting exhibit.

CHAPTER VII.

THE TWO CENTRAL AMERICAN REPUBLICS.

The Pavilion of Costa Rica—A Modest but Pretty Building—Diminutive Monkey with Lots of Hair—Silks and Fibres That Fairly Dazzle the Eye—Coffee and Waffles Served Free—A Glance at Guatemala—Gardens that Represent Coffee Plantations.

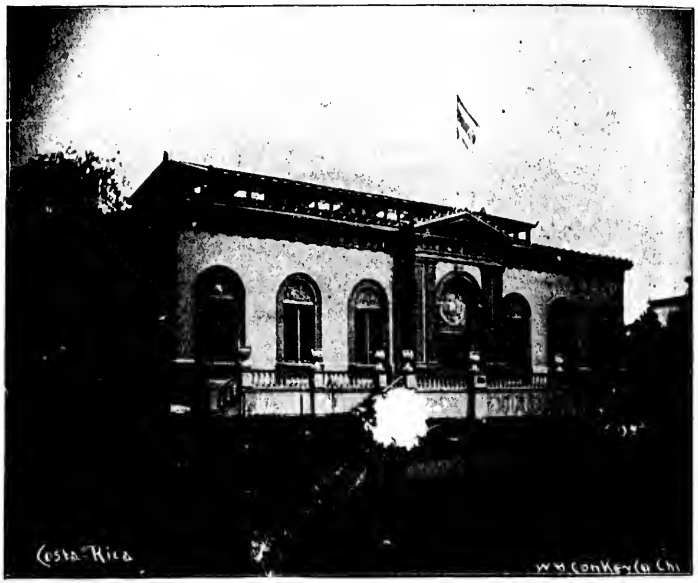


OSTA Rica's building is situated at the east end of the north pond facing west, and the location is one of the best in the confines of the grounds. Across the north pond, and within a distance to be fully appreciated, are the Illinois, Washington, Indiana, Ohio and Wisconsin buildings. To the right are the Galleries of Fine Arts, and on the left stand Guatemala and Spain, while as a background and not far distant, Lake Michigan murmurs praise to the efforts of mortal man. The building is Doric in style; is 103 feet long by 60 feet wide, two stories and clearstory, making the full height 50 feet. On each side is a Doric portico 22 feet wide, supported by four large pilasters. Three easy steps lead up to the main floor, and opposite this front entrance broad double stairways lead to the second, or gallery floor, supported by eighteen columns rising to the full eighth of the clearstory. The cornices, frieze moulding, caps and bases, window casements, etc., are made of iron. The main walls are cemented, and all is painted in effective colors. The inside walls are plastered, and the walls and timber work are frescoed in a modest and becoming manner. The building is lighted by twenty large double casement windows in the first story, and ten large skylights in the roof of the clearstory, while on all sides of the latter the windows are pivoted so that when opened they will afford perfect ventilation. Ample toilet rooms have been provided on each floor. Over each main entrance to the building is placed the National shield of the central American republic in bold relief, making a striking addition to the decorative part of the work. The building cost $20,000.

An airy, pleasant place it is, with its wide windows opening out over the waters of the lagoon, upon the very brink of which it stands, and its broad porch across the water front, where visitors loiter and watch the nimble craft darting like agitated water spiders over the still waters. The trees comes down close about the little building, and on the landward side each open door and window is masked with a brilliant curtain of vivid living green. The interior is not divided by any partitions, but forms a single wide room with an airy gallery running about its walls. Everywhere about the big room are disposed the products to which Costa Rica

wishes to call the attention of the world. There are cases of rich silks, where rainbow hues fairly dazzle the eye with their shimmering brilliancy and miniature mountains displaying the mineral wealth of the little republic, and there are textile fibers and raw silk and all the natural products of the soil in the way of roots and gums and rezins, and the sea has been levied on to furnish bottled specimens of the coast fish and huge turtles, whose shells have been polished to render them more attractive to the casual visitor. Then there are samples of manufactured goods, hardware and jewelry and curious and intricate designs in tortoise and sea shells and whole cases full of bottled native wines and even ale and beer.

Most of the contents of the numerous cases suggest a country rich in the raw materials, which older countries are better able to utilize, but not all. Many of the manufactured articles are very nearly perfect in their way. At one end of the floor is a coffee stand and in front of the wide windows are little tables at which tired people may sit and for a trifling sum regale themselves with a pot of coffee of whose genuineness there can be no possible doubt. A sort of thin, flaky waffle is served with the coffee. It is a most delicate refection, calculated to tempt even a jaded appetite. People sit about the tables and enjoy the cool breeze which always seems to blow in through the big windows, and chatter about the view outside or the curious things within, and order more coffee and get other waffles and seem positively wedded to the spot. The gallery is given up largely to an exhibit of pictures showing features of the scenery, portraits of people connected with the history of the republic, and views of noted places. These are interspersed with cases of stuffed animals and birds which are distinctly local in character. There is one cage of diminutive monkeys with enormous tufts of hair crowning their queer, wrinkled little heads, and their postures and antics keep an interested, laughing group in front of the cage all day long. There is much that is interesting from its



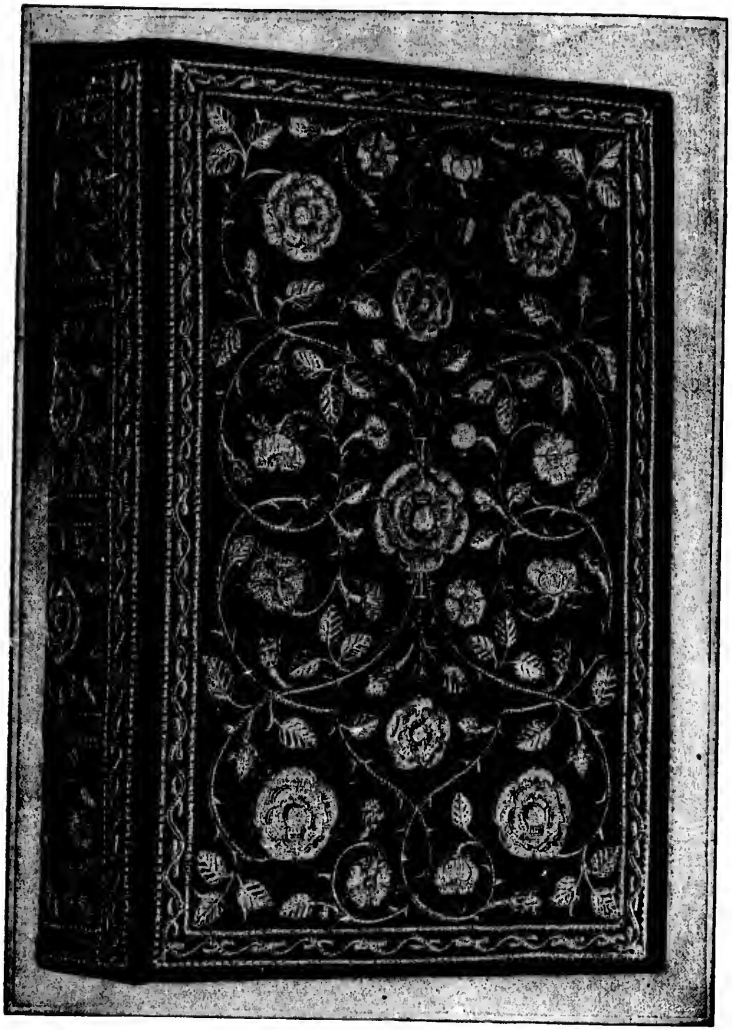
COSTA RICA BUILDING.

very strangeness and unfamiliarity in the little Costa Rica building, and even if there were less it would amply repay a visit simply from the standpoint of a cool, little rest house set in the midst of a charming scene.

The Guatemala building is square, with 111 feet at each side, and occupies a total area of 12,500 feet. The architecture is original, but in no way classical. It is kept in Spanish style and corresponds well with the country it represents. The height of the first floor is 24 feet. In the center of the building a large court is arranged, 33x33 feet, with a gallery built upon colonnades of two floors. This court resembles the old patios in a Spanish house, and gives freshness and ventilation in the entire structure. In the center of the court there is a fountain from which the water plays as from a big rock. On each of the four corners of the building there is a big tower 23x23 feet, surmounted by a beautifully decorated dome. The entire height of each tower is 65 feet. In two of the towers there are two large staircases, giving access to the gallery above, which extends as a terrace around the entire building. The construction is in wood, iron and staff, and the ornaments represent fruits and flowers, all in an original and light character. There are four large rooms on the first floor, and on the second floor a large reception room, with two offices and toilet rooms. All the exhibits from Guatemala will be found in this building, the most interesting of which is coffee, and how it is cultivated and marketed.

GUATEMALA BUILDING.

At a distance of about thirty-five feet from the main building is a rustic hut, 70x25 feet, and at the end of the same is a small kiosk, adapted for testing the coffee. The entire space around the building is converted into a large garden representing a coffee plantation, banana trees and other plants. Indian tents are placed in a corner of the grounds, and a landing place has been constructed opposite the principal entrance on the lagoon. The building cost $40,000.



FAC-SIMILE OF BIBLE BELONGING TO QUEEN ELIZABETH.
Royal Society of Art Needlework, England.

CHAPTER VIII.

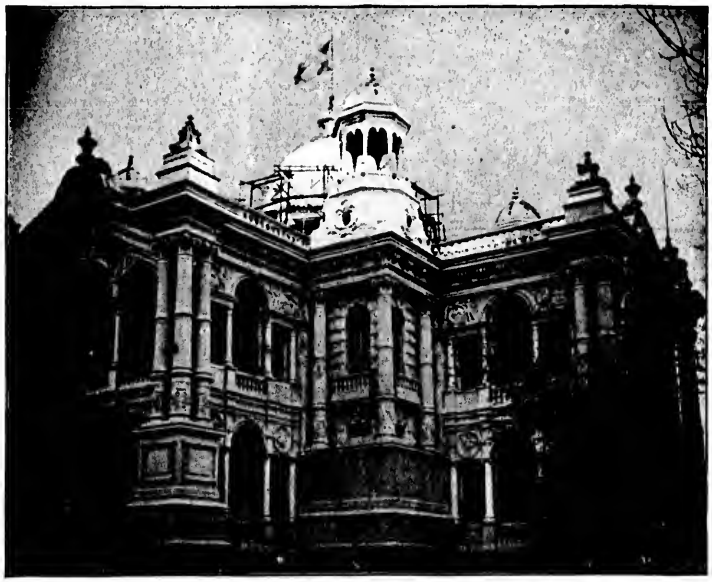
BRAZIL AND VENEZUELA.

The Beautiful Buildings of the Two South American Republics—Brazil Has One of the Most Attractive Pavilions on the Grounds—Coffee Served Free to Thousands Daily—Venezuelans Do Their Level Best with Coffee and Beans—They Show Many Swords and Other Trophies of General Simon Bolivar.

ONE of the most pretentious and one of the most beautful of all the foreign structures is Brazil's handsome building, which stands across the lagoon east of that of the State of Illinois. It is built after the French renaissance style of architecture. It is covered with delicate detail work. The large dome is surrounded by four smaller ones and the walls of the building are covered with sculptured work in staff. On the outer walls of the building are twenty medallions, each of which bears the name of one of the twenty states which comprise the Brazilian republic. The upper panes of the large windows are of stained glass and the interior woodwork is most artistic. The entire first floor is devoted to coffee. Every kind of coffee from the cheapest to the highest in price is on exhibition. There are half a dozen large stands covered with the glass jars holding the berries. In the rear portion of the room a large plantation in St. Paulo serve cups of its best coffee free to all visitors to the South American building who indulge in the beverage. Rio Janeiro and Minas Zereas also have large displays in this department. The entire second floor, which is reached by a broad stairway, is given up to reception-rooms and parlors. In the large reception-room is an extensive collection of paintings by the famous artists of Brazil. The entire floor is carpeted and furnished with luxurious chairs and lounges, while in the eastern portion of the floor private apartments are furnished for men and women. The officers of the commission are also located on this floor. Four spiral stairways run from the main reception-room to the roof, which is the feature of the Brazilian building. On the roof are settees and benches. Palms are placed about the eaves, and visitors are always welcome to climb the steep stairway of iron and enjoy the view from the Brazilian summer garden.

The Venezuela building is an extremely pretty bit of architecture, a delicate gray in color, relieved with green and gilt. The main portion of the structure, the front of which is ornamented with rows of square fluted columns, is flanked by a wing on either side, the dome-shaped roofs of which are surmounted by two bronze

statues, one of Columbus, the other of General Bolivar, the liberator of the South American Latin republics. They are both from the studio of Sig. Turini, an Italian sculptor, who at present resides on Staten Island. And the sculptor has every reason to felicitate himself upon the merit of his work. Both figures are admirable pieces of work, instinct with dignity and vitality. Sig. Turini's Columbus particularly merits attention, as it has been pronounced by many good judges to be one of the most satisfactory statues of the great admiral which has been exhibited in connection with the Columbian exposition. Certainly it seems to almost defy criticism. The pose is spirited, the face strong and characteristic, and from whichever side it is viewed, it gives the impression of a powerful, well-balanced figure.



BRAZIL BUILDING.

The main part of the interior of the building is given up to the uses of a reception room. It is handsomely decorated, and the walls are hung with some really superb paintings. Venezuela was unable on account of its revolution to secure space in the Art building, consequently it was necessary to hang such paintings as the republic wished to exhibit in its own building. Arturo Michelena and Christobal Rojas have each some beautiful specimens of work. The "Fight of the Amazons" of the former, and the "Purgatory" of the latter are each wonderful paintings, and it is a pity that they as well as some of the others could not have been hung in the gallery where they would have appeared to better advantage. The principal part of the exhibit is made up of natural products, coffee and cocoa being

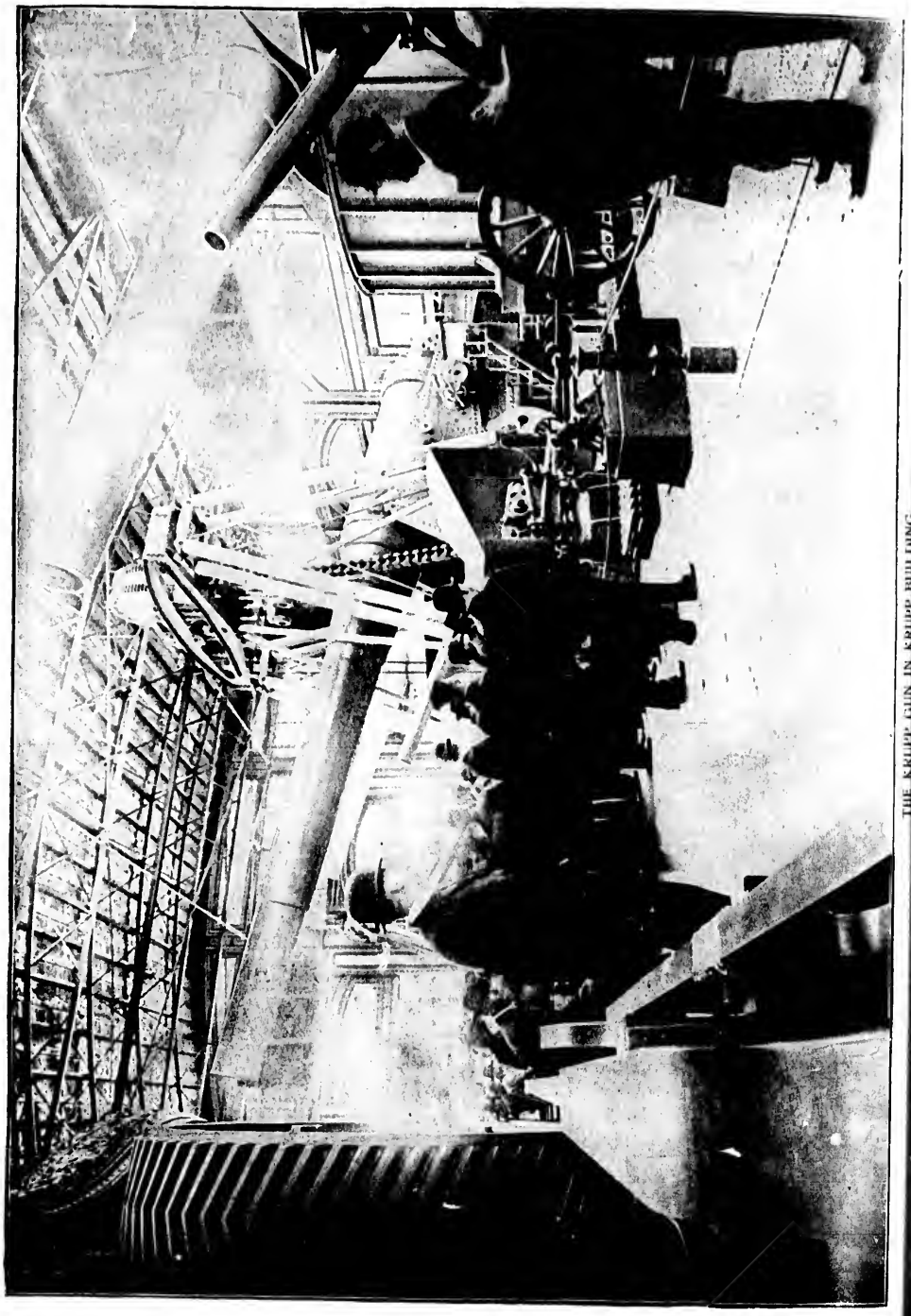
the staples. There are also rich displays of minerals, some beautiful woods, and a variety of textile fibers in the raw state.

When it comes to beans, Venezuela appears to lead the world. There are shelf after shelf of beans of all shapes, sizes and colors; enough in quantity to feed an army, and diverse enough in kind to suit the most whimsical or exacting taste.

Venezuela isn't far behind in the matter of snakes, either. The dignified commissioners do not waste their time swapping snake stories, but on the wall of one of the side rooms are hung a snake skin or two that measure something like twenty-five feet in length and are big enough to completely envelop a man. The visitor may just go in and look at them and then go out and sit on the doorstep and tell himself or his friend any kind of a story he wants to fit the skins. But the trophies in which the Venezuelans take the most pride are those which have a historical interest, and hanging on the wall are the gorgeous standard of Pizarro and the bullion-crusted saddle-cloth of Gen. Bolivar. These are regarded as almost sacred, as is also the sword of the general, which is kept in the safe. This weapon is set with 1,380 diamonds and is generally acknowledged to be one of the most magnificent specimens of jeweler's work in the way of weapons extant. There is another object which the gentlemen from Venezuela cherish with particular pride and care. It is a medalion painting of Washington, the gift of the revolutionary hero to the liberator of Venezuela, Gen. Bolivar.

VENEZUELA BUILDING.

Many of the articles on exhibition show not only the love of liberty, which is the birthright of the Latin American republics, but also a strong and friendly tie which binds the great republic of North America to its southern sisters. It is not generally known, but in Central Park, New York, there stands a statue of Gen. Bolivar, while in the Venezuelan capitol is a corresponding one of George Washington.



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CHAPTER XI.

THE WEST INDIES REPRESENTED.

Hayti Has a Roomy Building—An Interesting Place Throughout—A Comprehensive Exhibit of Hayti's Natural Resources and Arts—Many Historical Relics—Metals, Minerals, Agricultural Products Woven Textiles and Fibres—Saddlery and Other Horse Equipments—How Men, Women and Children Were Driven Into the Mines—The Introduction of African Slavery—How Hayti Moves With the Rest of the World—Great Credit Due to Fred Douglass.

HAYTI has no typical architecture, so its commissioners selected a design having the suggestion of colonial style. It is very roomy, and represents the first separate building ever erected by the republic in an exposition. Besides being the home of the Haytien commissioners it is a comprehensive exhibit of Hayti's natural resources and industrial arts. One of the most interesting of the historical relics shown is the anchor of the Santa Maria, which was wrecked off the north coast of the island Dec. 14, 1493, on Columbus' second voyage. Its mate is in the convent La Rabida. A pre-Columbian relic is an odd piece of sculpture which was used by the French for a baptismal font. It was made by an extinct race, the people found by Columbus. They numbered 3,000,000 when he landed, but fifteen years of Spanish rule reduced the race to 16,000. Men, women and children were driven like dogs to the gold mines. This introduced African slavery into Hayti, a fact which adds great interest to the first sword drawn for the freedom of the slaves, which occupies a prominent place in the Hayti building. It is the rapier of Toussainte l'Ouverture, held in fond memory by his countrymen.

In the center of the main room is a marble statue called "Reverie," by La Forrestry, a native of the island. It secured a gold medal in the Paris salon of 1873. One section of this room looks as if part of the forestry department had been moved into the building. All the native woods, well mounted and handsomely displayed, are grouped together. On the other side of the room is a fine block of mahogany which weighs three tons, rough on one side and highly polished on the other.

Hayti show thirty-four different kinds of coffee, various qualities of cotton, cocoa, and all the cereals. In the industrial section is a fine display of saddlery and horse equipments, and raw and tanned leathers, from the roughest shoe leather to the finest Russian. Several large showcases are filled with the women's exhibit

of fine embroideries and dresses. The metals, minerals, woven textiles and fibres displayed show that Hayti is rich in natural resources, and the finished product demonstrates a decided advance in the industrial arts during the last decade.

The Hayti building lies to the southwest of the German building and adjoining that of New South Wales. It is in the Greco Colonial style, surmounted by a gilded dome which is copied after the state capitol of Massachusetts. The structure has a frontage of 126 feet, including piazzas 12 feet wide which surround three sides of the building. In the center of the façade is the coat-of-arms of the Republic of Hayti in a medallion surrounded by a scroll bearing the following inscription: "*Republique Haitienne*," and the dates 1492 (the discovery), 1804 (date of Haytien

HAYTI BUILDING.

national independence) and 1893 (the present anniversary). On entering the building one comes into an exhibition hall 50x50 feet, in the center of which are eight Doric fluted columns supporting the dome. The decorations consist principally of red and blue bunting, the national colors, with flags and escutcheons. The exhibits in the pavilion consist principally of agricultural and forestry products, with some specimens of native industry in a general way. There is also displayed some pre-Columbian relics and the authentic anchor of the Carevel Santa Maria, the mate to which was loaned by the Haytiens to the Columbus collection in the Convent of La Rabida. The sword of Toussaint L'Ouverture is also shown among other relics of the struggle for independence. Opening from the main hall through a ten-foot archway is another exposition hall, at the rear of which Haytian coffee, prepared by native hands, is served. The entire left wing is given up for reception rooms and executive offices.

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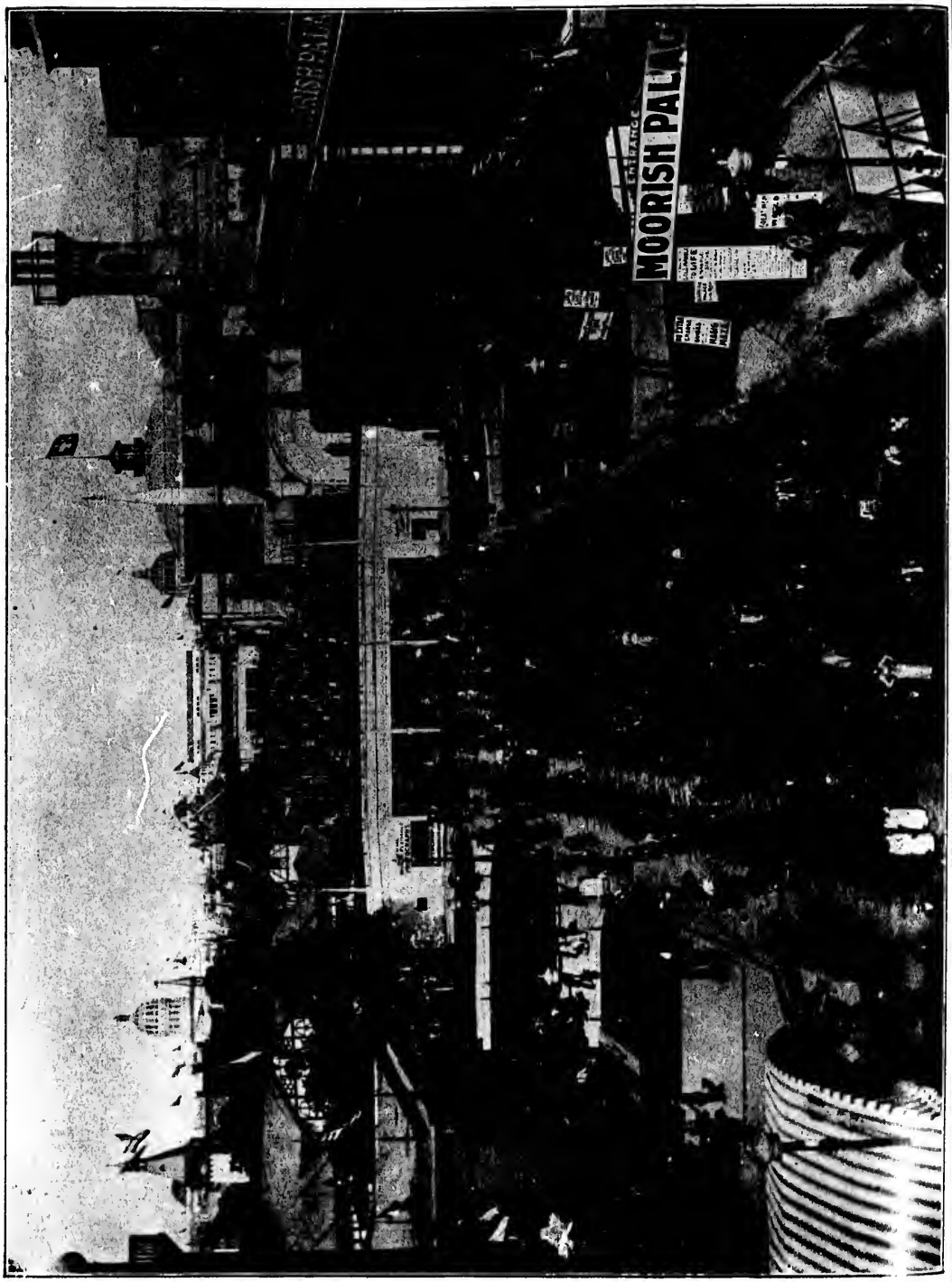

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PART XI.

THE MIDWAY PLAISANCE.

CHAPTER I.

CAIRO STREET AND TURKISH VILLAGE.

A General Combination of the Architectural Features of the City of Cairo—Mosques, Minarets, Dancing Girls, Shopkeepers, Musicians, Camels, Donkeys and Dogs—The Temple of Luxor Reproduced—Tomb of the Sacred Bull—Nubians and Soudanese—Reproduction of Temples Four Thousand Years Old—A Room Full of Mummies—Egyptian Shops and Shopkeepers—No Such Sight Ever Seen Before in Europe or America—Laplanders and Their Reindeers—Wonders of the Turkish Village—Counterparts of Objects in Constantinople—Turkish Theaters and Bazaars—The Five Million Dollar Tent of the Shah of Persia Which Took One Hundred Years to Make—Marvels of Oriental Tapestry and Embroidery—Sword and Handkerchief Dances.

RAIN or shine, hot or cold, day or night, there is one place at the Fair that is always crowded. That is Midway Plaisance There never has been seen such a mosaic, and there may never be again—not for many years, surely. The Plaisance is just a mile in length, and about an eighth of a mile in width. Along this mile there are (or were) representatives of 48 nations, including South Sea Islanders, Javanese, Soudanese, Chinese, Laplanders, Japanese, Dahomeyans, Moors, Arabians, Persians, Bedouins, Turks, and nearly all the Europeans. According to the best authorities there are 2,754 known languages and dialects spoken by the various nations and tribes of the world. After a brief visit to Midway Plaisance the visitor comes to the conclusion that all these and a handful of extra ones are spoken in this paradise of Babel. A short time ago a journalist of ordinary linguistic attainments could get along very well indeed. All he then needed during a day's ramble was half a dozen Indian and cowboy dialects, little picturesque Algerian-French, a good supply of strong English adjectives for the bombardment of the Columbian Guards, some hard-boiled German sentences interlarded by Platt-Deutsch for the Hamburgers and an assortment of choice Greek roots for the Hellenic gentlemen. But day after day the reporter's proficiency in languages began to be taxed. He had been called upon to lubricate his larynx by blubbering in choice Eskimo, when trying to console the discontented denizens of Labrador. He blistered his tongue with peppery hieroglyphic sentences in

Turkish, while explaining the custom-house red tape to an irate pasha of many woeful tales. He had his hands full of explanatory gestures and his mouth full of tangled and spluttering consonants while affirming in scrap-iron Russian that Count Taffyoff was right in his assertions that all American girls were charming.

But there is a limit to almost everything. It becomes tiresome to have to sharpen your pencil in thirty odd different languages, and eat your lunch in as many more. When Midway Plaisance, this fantastically picturesque mosaic of odd bits of tribes and nationalities from every quarter of the globe, became populated by rakish crews who utterly ignored an Ollendrof or a Meisterschaft system it was time to call a halt. Thus it happened that the man who formerly was wont to dumbfound his friends and everybody else with his linguistic abilities suddenly remembered that there was one language which he might use. He then began to speak English, and lo! the strangers were dumb no longer, but beamed with satisfaction and made intelligent replies in the same language.

Most of the denizens of Midway Plaisance care little for the formalities or niceties of speech. They "size" you up for what amount of "dust" you may be good for and act accordingly. Here is a blandly smiling Chinese confidence man who comes out of his blue and white pagoda and asks you to walk in and have "a clup of velly nice tlea." Being tired you are likely to accept the invitation, thinking that you simply accept a gracious offer of Chinese hospitality. You are treated to a nicely served cup of tea; you drink it for fear of being thought rude if you should refuse. Nodding a careless "thank you" to your host in leaving, you are suddenly taken out of your dream of being entertained by the shrill demand of "fliftly clents." To expostulate is of no use. You had drunk the tea, and the bland Ah Sin says that is the "plice for velly fline tlea." This is only a trifling incident, but serves the purpose of illustrating the all-absorbing aim of the Midway Plaisance people—to get all the money they can.

They have not come thousands of miles merely to add a picturesque feature to this wonderful exhibit. Almost all of them are professional traveling showmen, who pitch their tents in whatever portion of the globe offers the greatest inducements in hard cash. All the profuse explanations that they are here by the special permission of Sultan this and Emperor that is bosh. As a consequence they do not propose to let any opportunity slip by which they may pocket a coin, be it small or large. The visitor is free to admire and take his pick of any of the manifold entertainments offered on all sides. You may drift into a Soudanese theater and witness a dance that will deprive you of a peaceful night's rest for months to come. The Algerian village offers equally great temptations in the way of dances with and without names.

In sharp contrast to these exhibits of the voluptuousness of southern climes is the exhibit of the Lapland village. From the sun-scorched sands of the African desert to the snow-swept crags of the Arctic regions is a great step. Yet the visitor to the World's Fair may see some of the home life of the children of the desert side by side with that of the children from the home of eternal

snow. Some enterprising Swedish American concluded that a Lapland settlement would be as powerful an attraction as any of the more pretentious rivals and certainly more unique, so brought some twenty or thirty Lapps and a herd of reindeer. One of the latter surprised its owners by presenting them with an addition in the shape of a baby reindeer. This happened in the village one June afternoon and caused great rejoicing. The happy mother received an extra share of luscious moss, of which the Lapps brought a great supply. She celebrated the event by shedding one of her horns, which is considered the correct thing in well regulated reindeer families on an occasion like this. The colony has a very complete outfit of tents, huts, dogs, sledges and snowshoes, as well as a large assortment of articles made from the various parts of the reindeer. The reindeer is the Lapps, all in all and it is truly wonderful to see the ingenuity which they exercise in bringing it to the best possible use, both while alive and after its death.

The Lapps with all their rugged surroundings, are very fond of finery. In the village at the Fair here they dress to their hearts' content. The women wear richly ornamented gowns of reindeer skin reaching to the knees, with pantalets and shoes of the same material. Their head covering is a queer little bonnet of bright colors made of pieces of wool and silk. They also sport belts ornamented with huge silver or brass buckles of quaint design and workmanship. The women have a special weakness for large vari-colored glass beads, which they wear around their necks and wrists. Oddly shaped rings are also much in vogue, which, with the addition of three or four very bright silk handkerchiefs about their neck, complete a fashionable Lapland belle's cossume. The men are not so eager for bright colors, but dress in other respects pretty much after the same fashion, except that they wear peculiar square caps and have shorter gowns. The most enthusiastic friend of the Lapps could never accuse them of being a handsome race. The girls, from their laborious and wandering life, mature early. You will search in vain for any starry-eyed Venuses among them. With few exceptions the Lapps have very broad faces with prominent cheekbones and very short chins. Their eyes are quite small and beadlike and their noses are flat with a retrousse terminus. With their quaint trappings in the way of reindeer, arms and curious tents they formed an attractive feature in the resplendent aggregation at Midway Plaisance.

But one can observe for five dollars in the Plaisance what it would cost twenty thousand dollars to see if he traveled purposely to see it, and no one complains. The greatest attraction of all, undoubtedly, is the "Street of Cairo," with its 180 men, women and children, theatres, camels, donkeys and dogs. It is about midway between the two parks, on the north side. It is not an exact reproduction of any particular section of Cairo, but a general combination of some of the chief architectural features of the old city. The plan for it was prepared by Max Herz, the architect of the Khedive, who was allowed to come to America to assist in the construction of the street. There is nothing artistic about the exterior appearance of Cairo street. The passer-by on Midway Plaisance looks on plastered walls and quite modern windows. The minaret which rises skyward in fantastic and graceful outlines, the obelisks, and the strange decorations, however, offer a

suggestion of something of interest within, and the weird music which issues forth is inviting. Through the main portal of the east end of the street the visitor lands in a brick court, and until he emerges from an exit, a block away, he is in the Cairo of old Egypt.

It takes a pretty heartless individual to get by the cafe, but if he succeeds in dodging all solicitations he leaves the court and gazes down the street paved with brick and faced on either side by buildings modeled after those said to be the most interesting in all Cairo. The mosque which stands on the right of the street is a reproduction of that of the Sultan Kait Bey, although the graceful minaret which is its crowning beauty is copied from the mosque of that of Abou Bake Mazhar. The muezzin, Sheik Ali, who has the care of the spiritual welfare of the Mohammedans, who are in the majority on the street, is faithful in the discharge of his duties, and in the mosque may generally be found a number of worshipers at their devotion—a picture of interest to the visitors who are allowed in the gallery.

A notable building stands across the way from the mosque. Gamal el Din el Yahbi, who was a wealthy Arab, took up his residence in Cairo 300 hundred years ago and built for himself a palace which was the envy of the rest of the 400 of those times. This house has been reproduced and furnished with some of the trappings that were used in those days, rugs, drapery, and furniture, all suggesting the fact that Mr. Yahbi surrounded himself with the best that money could buy.

From the mosque to the turn in the street—for it is just as crooked as one has a right to expect in a Cairo thoroughfare—each side is given up to the business purposes as to the lower floors, while the upper floors are dwellings. Beautiful balconies and bow windows are seen, while here and there relief is given by a carved balcony. All the windows are protected by graceful woodwork and many of them are made of stained glass. The shades in the window are attractive. No paint covers the closely-woven Meshrebieh screens which protect them. Long service in the Egyptian climate, however, has given to many of these ornaments a polish and color that only age could bring.

At the turn in the street is a pavilion, such as is used for a kuttab or mosque school in Cairo, which is devoted here to the use of visitors as a place of rest. Behind it is the door to the theatre devoted to the sword dances, candle dances, and the other gymnastics indulged in by Cairo dancers, which are weird and indescribable. The auditorium has a lofty ceiling, is decorated with rich draperies, glassware, and curious pendent chandeliers. The stage, which is semi-circular, is lined with rich divans, on which the dancing girls repose in ease when not dancing, and which also furnish accommodations for the orchestra. On either side of the stage are richly curtained dressing-rooms, one for the use of the musicians, who are not quite in keeping with the appearance of general picturesqueness of affairs. To the other rooms the dancing girls adjourn to smoke cigarettes or to take a leisurely pull at nargileh, of which form of smoking the Egyptian dancing girl is a devotee.

Passing from the theatre and on to the street again the portals of the open court, which constitutes a sort of side thoroughfare, are enticing to visitors who

wander in to be besiged by shopmen who solicit trade under the shadow of some of the most attractive balconies and overhanging windows in the street.

In the Soudanese Siwan a couple of generations of a family do a dance. The Nubians in the next hut have a dance which is rather more of a contortion act. Zenab, a young woman with her lower lip dyed a purple color, is the chief artist, but the leading attraction is a Nubian boy sixteen years old, black as ebony but with beautiful features. The Nubians wear their hair in a peculiar style, such as has obtained in their country for the last 4000 years, and keep it copiously greased with perfumed oil.

THE ALGERIAN.

The donkeys and the camels also have their quarters in this courtyard, and Toby, who enjoys the distinction of being the shrewdest donkey-driver in Cairo, there secures a voluntary collection of backsheesh by putting his donkey through its antics. The donkey the aforesaid Toby was wise enough in his generation to decorate with the name "Yankee Doodle." The conjurer, a grizzled old Egyptian, has a magnificent tent in the courtyard. He does his own sideshow talking while balancing an egg on his nose or hanging a lemon under his ear, and when he gets his tent full goes inside and performs marvelous feats in sleight-of-hand.

But after all, the shops and booths in the street proper hold the most attractions, filled as they are with everything produced in the valley and the country of the Nile, every quarter of which contributes artisans and their works. G. Lekegian, who enjoys the distinction of being photographer to his Royal Highness, the Khedive, has a large gallery in which he prepares and sells scenes in the street. Next door to this studio three Cairo barbers have a little shop from the door of which they solicit all bearded men. They cause their patrons to squat on narrow counters, haul down a fresh towel from a pole in front of the establishment, put a few daubs of soap on the face of the subject, and with a curious razor and a few twists of the wrist deftly remove the soap, the beard, and as much of the epidermis as happens to get in the way of the razor.

Quaint affairs are the shops on the Egyptian streets. None of them are much over six feet by six in dimensions, and are merely rectangular holes cut in

the walls of the buildings. The proprietors squat in one corner and smoke and talk business at the same time, allowing would-be purchasers to handle their own goods. There are fifty booths in all, controlled by Raphael & Benyakar of Cairo, whose manager is Arthur H. Smythe, of Columbus, Ohio. Weavers from the valley of the Nile, slipper makers, tent makers, fez makers, carvers of ostrich eggs, candy pullers, jewelers, potters, brass workers, tailors, and other varieties of artisans are to be seen actively engaged in their little shops. In those in which wares are on sale pretty American girls have been engaged to help along business, and some of them have been induced to keep up the appearance of the general fitness of things by attiring themselves in real Egyptian garb.

There are numerous other things to amuse and entertain visitors on the street itself. A street fight is an everyday occurence in Cairo, and is just about the same way in the street on the Midway Plaisance. The presence of visitors has not the least effect in deterring the strange inhabitants of the place from settling their personal differences by fisticuffs, and it keeps half a dozen Columbian Guards busy preventing corner fights. Then there are jesters who make wry faces and get off Egyptian jokes which are said to be as old as Rameses himself; wrestlers, their swarthy bodies naked except as to leathern pantaloons, who throw each other on the hard bricks; savage-looking chaps who try to welt each other over the head and often succeed in fencing matches conducted with big clubs; musicians who send hideous music squeaking along the thoroughfare; and acrobatic boys who turn limber somersets and do other gymnastics.

Of course all these people are not going through their acts for fun, for each of them is to the Cairo street what the Italian organ-grinder is to the street of an American city. They are after the fleeting penny for which everybody in the Midway Cairo has a great respect and desire. The café, theater, temples and shops are more attractive by night than by day, for, although electric light is employed to some extent, dependence is placed for proper effect in illumination on nature's light and that from the myriad of quaint Egyptian lamps employed for the purpose suspended from amid gold and silver globes and silken flags and banners.

Just west of the Street of Cairo is a reproduction of the temple of Luxor, near Thebes, built by Amenoph III. and made the leading place of ancient worship by Rameses II. Over the door is the winged disk, illustrating the flight of life. At each corner of the front are two monolithic obelisks made in fac-simile of the originals. They are seventy-five feet high. On one is sculptured in hieroglyphic language a dedication to Rameses II. and the other to Grover Cleveland. Beside the obelisks are two colossal statues of Rameses II. and on each side of the doorway are two sphinxes. The front wall of the temple is covered with sculptured battle scenes and scenes of worship.

A double row of mammoth pillars lead from the entrance to the altar. The pillars are eight feet in diameter and all except the two next to the altar are covered with hieroglyphics. The two exceptions are gilded and represent the worship of the sun. The altar itself is made in exact reproduction of the altars of Isis. At either side are two Egyptian women playing ancient music on harps of the olden

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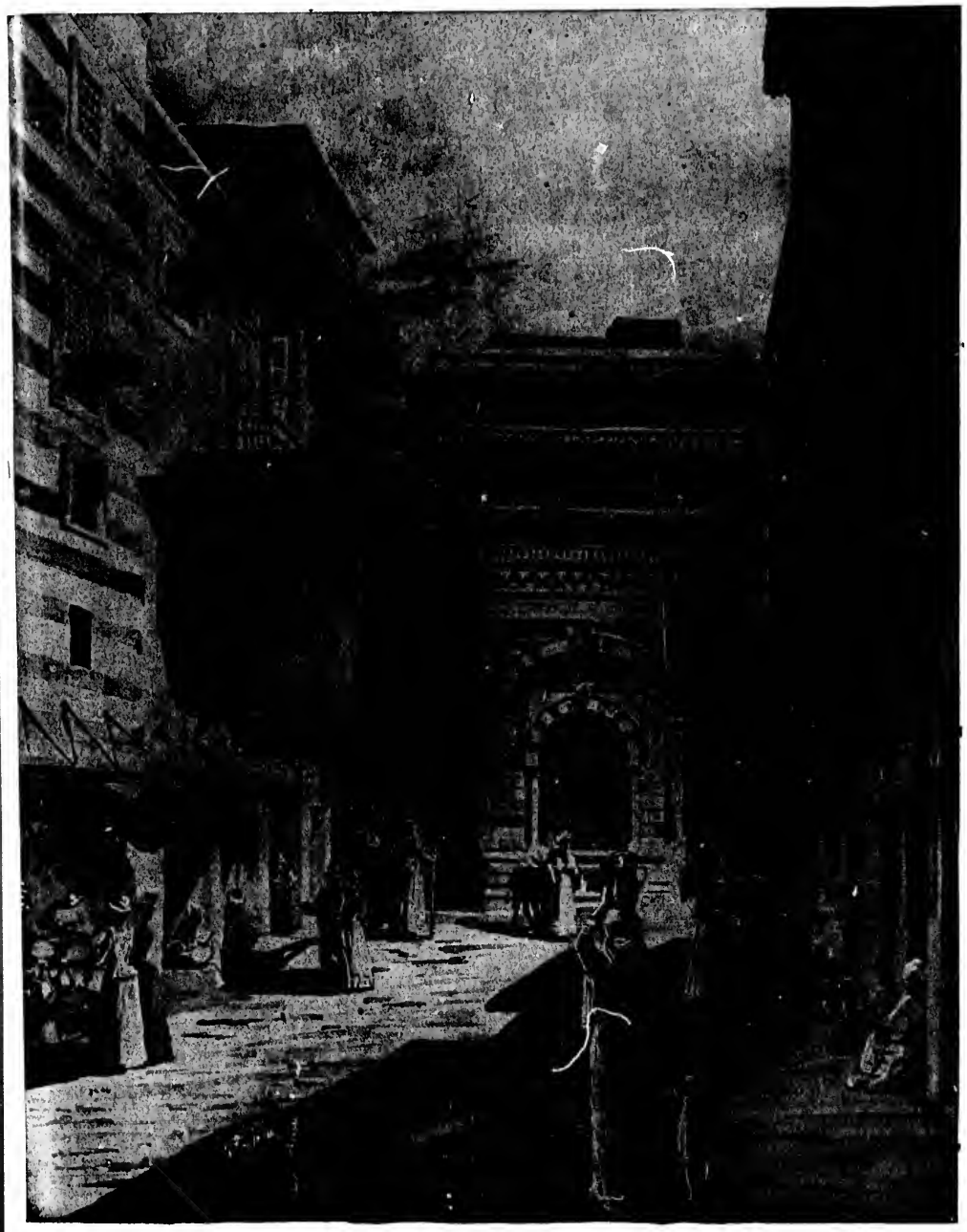

CAIRO STREET MIDWAY PLAISANCE.

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time, and in the center is another dressed in the robes and illustrating the functions of the high priestess of 1500 B. C. The walls are covered with the illustrations peculiarly Egyptian. To the left is shown Rameses II. and his wife, Nofertari, adoring the God Amon-Ra. Next comes the Ra, or the sun, supported by two uraei symbolizing the protection of Isis and the stability of the creation and resurrection. Then follow the cartouches of the Pharaohs from Mena down to Amenoph III. seated on a throne and receiving gifts from Syrians and Ethiopians.

On the north wall is shown the shrine with the Theban triad. There is also a judgment scene representing two justified souls led by Horus into the presence of Osiris, his father who is seated on the throne of justice with the sisters of Isis and

ARAB WORKMEN AT THE WORLD'S FAIR.

Nephthis in the attitude of intercession standing behind the tnrone. Beside this there is a judgment scene of a soul condemned to a second probation on earth after living a lifetime in the body of some unclean animal. The ceiling is beautifully decorated with stars on a sky-blue ground and in the center is the sign of Scarabeus, the symbol of eternity or life.

"We have here fac-similes of the most famous of the Egyptian mummies," said Demetrius Mosconas, the Egyptologist who has charge of the temple. "They run from 1800 B. C. to 1400 B. C. It includes the mummies of Huhor, Pinozeme, Rameses II. and his father, Seti I., Thothmes III. and Ahrons. Each is placed in an exact reproduction of the sarcophagus in which the ancient remains were found. You must not imagine that this temple represents a place of public worship. These old temples are misnamed to a certain extent. They are little more than monuments to the kings who built them. These kings used them for worship, but no one ever went with them except the priests. Back of the altar are reproduced the

tombs of Thi and of Apis, the sacred bull. Around the walls of these tombs are reproduced, as in the temple proper, the story of the lives of the inmates.

"In the Apis tomb is the sarcophagus, which contained the object of worship after it died. It is 9 feet high, 8 feet broad and 10 feet long. This is all of stone and the cover is a stone 2 feet thick and 10 by 12 feet long. The larger stone was hollowed out to make the tomb and the capstone put on and sealed. The years which famous scholars have given to the subject of Egyptology have never shown any way in which the ancients moved these monstrous blocks of granite. With the latest appliances to-day the task is extremely difficult, and what it was in those days we can only wonder. Some of the monolithic monuments weigh nearly a thousand tons, and yet they were transported much the same as we transport lumber. Another thing of which we know nothing is the smokeless light, by means of which they lighted their temples and the dark recesses of their rock-cut tombs. I have spared no pains to make these copies fac-similes. My labors have stretched over two years and in every detail I hope that it is all exact."

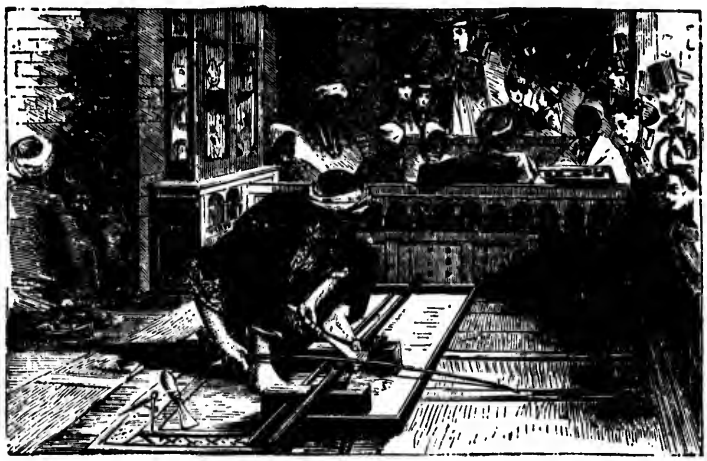
The Turkish village stretches along the Plaisance to the south. Here one finds himself in a city on the Bosphorus—the renowned Constantinople. In the square approaching the street stands an obelisk, a counterpart of one erected in Constantinople by the Romans before the time of Emperor Constantine. To a casual observer it appears like highly polished stone, but in reality it is of wood, carved in Turkey and shipped in sections. Plaster casts were made of the Turkish characters and Roman lettering on the base and so deftly did these artisans of the Ottoman empire do their work that the entire obelisk and base appear as a monolith like the original.

Within the main building is the tent of the Shah of Persia. Just which shah is not stated, but there is no doubt of the genuineness of the fabric, which, it is estimated, was more than a century in making. The money value placed on this exhibit is rather startling, but all callers are informed that the tent is worth $5,000,000. Viewed from the exterior this relic of Persian magnificence is rather gaudy and commonplace in appearance. The red ground-work of the fabric appears to be interwoven with other coarse material of faded colors. A casual glance in the darkened interior fails to reveal the beauties of the fabric, but lift one of the folds and how heavy it is, and how thick. Look more carefully and every figure, character, flower, and leaf stands out like a cameo cutting. Each figure and character has been traced in gold thread so delicately that the closest scrutiny is necessary to reveal its true beauties. One is inclined to doubt that such work could have been accomplished by hand. Hundreds of patient needle workers gave their lives to the production of this royal resting place, and hundreds of thousands of dollars were expended for the precious threads that are so daintily and perfectly traced on the groundwork. A similar tent could not be reproduced with less expenditure of labor and money. Small wonder the Persian monarch places such value upon it.

The mosque dedicated to Allah and which no Christian can enter is, with its dome-like roof and graceful minarets, a striking feature in this section of the

Plaisance. It is almost square in form and pure white as to the walls and domed ceiling. Under the center of the dome eight pillars support an equal number of mauresque arches reaching to the roof. The essential structure of the edifice is sternly plain and contradicts all preconceived ideas as to the wealth of color proper to oriental architecture. In the matter of hangings and woodwork, however, the mosque is ornate in a high degree.

Around the walls runs a dado of dark-hued wood, carved in a multitude of intricate lines that must have tested the perseverance of the cunning artificer who designed them. Verses from the Koran are everywhere, carved in the straggly lines that represent the Turkish conception of lettering. Marvelous gilding is interspersed here and there in the tracery, and the effect of the whole is enhanced



AN ORIENTAL TURNER.

by panels composed of dark and light colored beads of wood arranged alternately in strings.

The central object in the mosque is the shrine, and here the tapestry worker has expended the utmost of his powers. The shrine consists of a mystic collection of devices in blue and gold worked on a green ground, hung in a recess of the east wall.

Plants in leaf, grotesque patterns, and an indescribable variety of adornments are encircled by lengthy quotations from the Koran worked with exquisite skill. The border of the recess is a collection of similar devices worked in black and gold on a groundwork of red.

On either side of the shrine are two huge candlesticks, containing the largest tallow candles ever put upon the Chicago market, with a broad band of green ribbon around each. In a corner of the mosque is the pulpit, ten feet in height and of the same material, approached by a carpeted staircase. Turkish rugs covered the

floor to defend the unshod feet of the faithful from splinters as they pray. Four curiously shaped lamps of bronze, with facets of cut glass inserted in the metal, afford light for the services.

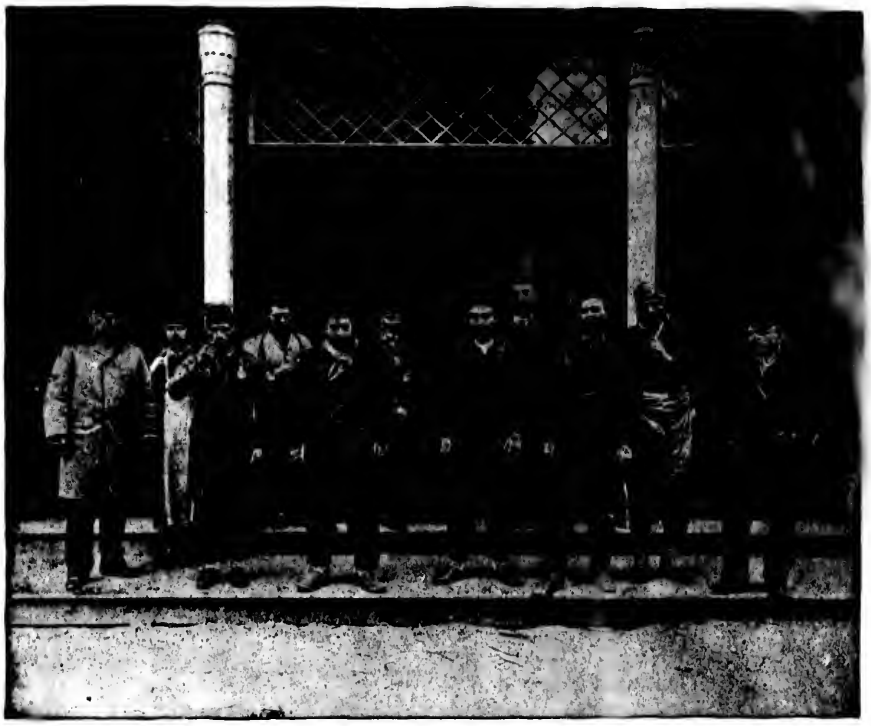
The street is lined with bazars and booths where rich oriental silks, Turkish ornaments, sandalwood boxes and all sorts of quaint and curious things are found for sale. The living room of the embroidery weaver is a marvel of Turkish ingenuity, the walls, floor and even the ceiling being decorated with tapestries and rugs. In the center of the room is a low table on which is placed a brass water bowl and urn of undoubted antiquity and curious outline. A coffee urn on a brass tray with half a dozen tiny china cups filigreed with gold stand hospitably near on a stand, the top of which is a mosaic of ebony and mother of pearl. The rugs are many in number, quaint in design, and undeniably Turkish, while the tapestry of wall and ceiling is of an intricate pattern and so old as to be almost priceless. The bay window, overhanging the street, is filled with a divan of ample dimensions, and here the worthy proprietor, his day's work ended, smothers himself in rugs and smokes his long-stemmed pipe while gazing at the scenes in the street below.

The Turkish theater is the great attraction in this little community, however. Eighteen houris of the Orient and sixty-five men have been picked from the companies of Constantinople, who dance, play and sing and form an orchestra, a stock company and a chorus. The complement is fully made up, and there are soubrettes in baggy trousers, heavy tragedy in a fez and low comedy in a turban. The dancers are culled from all quarters of the Orient, and include Damascene, Turkish, Zebecion, Bedouin, Albanian and Palestinian twirlings of the light fantastic. Both men and women take part in the evolutions, premieres performing the Turkish dance, which is rendered by the aid of a silk shawl, waved above the head to the accompaniment of rhythmical finger snappings, while premieres alone execute the Albanian dance.

As for the orchestra, it is largely manjereh with a daoul obligato. The daoul is a colossal kettle drum, pounded by brawny Turkish arms—the manjereh being a long-drawn-out flageolot numerously connected with eastern dancing. The music is mournful, weird, plantive and funereal by turns—never lively nor rhythmical; yet, when floating out from a latticed casement or portiered doorway, is not entirely unenchanting.

One of the greatest attractions of all is the Moorish Palace, filled with excellent wax figures, mirrored labyrinths, cafés and "La Dijonnaise." In a dark room in the museum of the Moorish Palace several American workmen erected a platform of old timbers. They reprehended the wood for its general toughness and wondered why anybody wanted to bring such truck clear over from Paris. After the platform was down they set up in its center two sturdy uprights, with grooves on the side, which faced each other. A nimble Frenchman climbed to the top of the uprights, nailed a cross-piece containing a pulley on top of them. Through the pulley he ran an old rope with ugly stains on it. He climbed down again, and from a box he carefully lifted a rusty, oblique

bladed piece of iron, which he adjusted in the grooves of the uprights. To the top of the iron he tied the rope, and then hauled the blade to the top of the uprights. "La Dijonnaise" was set up ready for inspection of visitors. "La Dijonnaise" has a great history. It is the guillotine that did such bloody work in the days of the first French revolution. Its blade fell and ended the life of Marie Antoinette in



TURKS AT THE WORLD'S FAIR.

October, 1793. After that great quantities of less royal blood trickled down the sides and over the platform of "La Dijonnaise."

After France had recovered tranquility the old guillotine was stored away. After King Wilhelm entered Paris at the head of his victorious troops the last Commune began its work of bloodshed. The same day that the column of the Vendome was upset and shattered by the red caps they broke into the storehouse where "La Dijonnaise" was kept and carried it out on the street. Afterwards the bits of the Column Vendome, the guillotine, and other historical articles were sold at auction, and M. Dubois, a wealthy merchant of Brussels, bid in the shattered column and the old guillotine is now in Midway Plaisance.

At the time of the last named Commune M. Roch, the famous executioner of Paris, who had charge of all relics of that nature, delivered to M. Dubois, over his own signature, a document vouching that the guillotine purchased was the one on which Marie Antoinette had met her fate. Another document of a similar nature is signed by the auctioneer to deliver the bloody machine to M. Dubois. The latter vouches for the authenticity of "La Dijonnaise" in a letter accompanying that of Executioner Roch.

SINGALESE CHIEF.

CHAPTER II.

THE TWO IRISH VILLAGES.

Lady Aberdeen's Work—Blarney Castle and the Village of Irish Industries—A Piece of the Genuine Blarney Stone—Carter Harrison's Speech to the Girls From Belfast and Cork—Lace-Makers and Weavers and Butter and Cheese Makers From the Land of No Snakes—Mrs. Peter White—Mrs. Ernest Hart and Her Village—A Reproduction of Donegal Castle—Eighteen Celtic Lasses—Good Irish Buttermilk—Irish Airs on Irish Pipes.

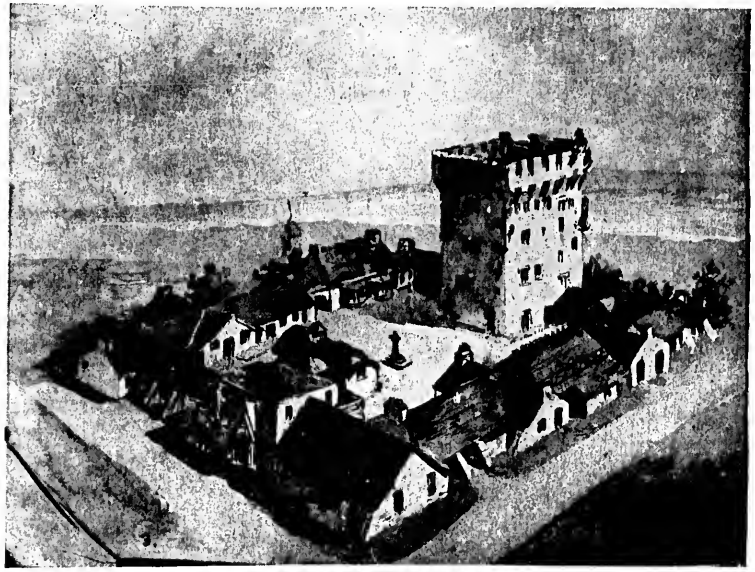
HERE were two sets of Hibernians with long-tailed coats at the Donnebrook Fair, which accounts, we will say, for two Irish villages on the Plaisance—Lady Aberdeen's and Mrs. Hart's. The former is known as the "Village or Industries," or "Blarney Castle," and is very typical, for there are weavers, lace-makers, butter and cheese makers, and a piece of the Blarney stone and lots of pretty Irish girls, more kissable, really, than the lucky stone in the castle, say what you will. Lady Aberdeen's Irish village is situated on the south side of the driveway, near the Jackson Park entrance. The buildings form a hollow square; the low slooping thatched roofs and the towering castle make a most interesting picture in themselves.

Many persons a day climb the long, winding stairway to see the Blarney stone and not a few to kiss it. It is set in a block of black marble, and is reached by an iron balcony and over it is this verse:

> This is the stone that whoever kisses
> He never misses to grow eloquent;
> A clever spouter he'll turn out or
> An out-an-outer in parliament.

Blarney Castle is an exact reproduction of the massive donjon tower near Cork, Ireland, built in the fifteenth century. It is said that the stone had not reached the full zenith of talisimanic power until 1799, when Milliken wrote his well-known song of "The Groves of Blarney." The tower is 120 feet high, and is well worth the climb for the view alone. Then there are the cloisters of Muckross Abbey and Tara Hall, which Tom Moore has immortalized. The cottages are so arranged that one can pass from room to room throughout the whole village. In the long, low apartments one sees the pretty Irish girls lace-making, knitting, embroidering and darning, and carding and spinning with the old-fashioned wheel and looms. High railings keep the crowd from the workers, who all dress in the picturesque peasant costume of their home-life. The dairy maids in bewitching caps and aprons are the personification of cleanliness and neatness. The interiors are

typical of Ireland; low rooms, with great high benches ranged against the wall, odd fireplaces and curious windows. At certain hours the pipers play in the courtyard and the villagers dance, while a number of concerts are given daily in the music hall by skilled harpists and vocalists brought over by Lady Aberdeen for the express purpose. There are many souvenirs on sale, of course, in the shape of Limerick and other laces, shillalehs, black-thorn articles, wood carving, bog ornaments, Connemara marble, pressed shamrock and squares of real peat tied up with green ribbons. There is also a genuine Irish jaunting car in connection with the village, driven by a rollicking Hiberian with an "ilegant brogue," the whole for hire to whoever cares to experience the novelty of a ride in such a vehicle. In the



BLARNEY CASTLE.

absence of Lady Aberdeen, who only remained for a short time, Mrs. Peter White, a beautiful and lovely Irish woman, presided over Blarney Castle, and made many friends by her womanly and bewitching manners.

The Blarney stone did not arrive until June, and was not placed in position until the 17th of that month. The stone in the Midway is not in the same position in the reproduced castle as the stone is in the real structure. Instead of being outside and below the coping it is inside and on the roof where people who want to kiss it are not in danger of breaking their neck.

"We want to make the kissing easy," said one of the Irish girls about the village. "Over in the real castle the stone is outside and down below the coping. People who kiss the stone over there have to be hung out by the heels or let down

a rope. Some of them break their necks doing it, too. We don't want any of that here, so we have the stone inside. We want to give people some easy reward for climbing up those stairs."

This stone is a piece of the old Blarney stone. It is about a foot square and Mayor Carter Harrison was the first to kiss the stone in this country, and the effect was magical. His honor talked with volubility and pleased the Irish lasses immensely with his frequent compliments.

Mrs. Earnest Hart's Irish Village, or Donegal Castle, is on the north side of the Plaisance. This village is not so elaborate or so striking as Lady Aberdeen's, but there are lots of Irish industries, Irish cooking and Irish girls.

John Bright once said: "Ireland is idle, therefore she starves; Ireland starves, therefore she rebels." Mrs. Hart's whole aim, as she declares, is that at least her part of Ireland shall not be idle. Armed only with her untiring energies and a warm letter to all from the archbishop of Armagh, primate of all Ireland, she left her English home of luxury to help the poor.

Any one who has ever climbed the steep pass of Glen Esh and crossed the seemingly endless bogs of Donegal into Carrick will have no difficulty in recognizing the buildings which Mrs. Hart has erected in the Plaisance. Entrance is had through the far-famed gates of St. Lawrence, built in the thirteenth century. The interior is a large court formed by cottages on each side and an exact reproduction of old Donegal castle at the back. In the center all that landscape gardening can do has been done to produce a unique effect. Around the edge of the walls runs a moat, and on its edge is reared a tower 100 feet high copied after one of the famous towers of the Emerald isle, the history of which is only a speculation of the antiquaries. Around these are planted old vines and clinging mosses which closely resemble the original article. In this court-yard are placed a number of old stones such as the pillar stone, Ogham hole stone and others closely connected with Ireland's early history.

"The first cottage," said Mrs. Hart, in describing the place, "is occupied by a Gweedore girl who makes kell embroideries. This industry I found, and called it so because many of the designs are taken of the old Celtic folk of 'Kells' and other early manuscripts. This cottage, like all the others, is an exact reproduction of the regular Donegal cottage where these home industries are daily carried on. The visitor may see the villagers in their native dress, living in cottages, the pot hanging on the fireplace, the cooking and the housewife work going on. All of my girls, who number eighteen, are pure Celtic lassies. The next cottage is a carpenter-shop, where the finer trades are shown, and I have a boy there who carves in wood the drinking cups, or mether, as they are called. Here also are made the designs for the Celtic crosses, and out there in the court-yard is a stone-mason who reproduces the designs in stone which has been brought from Ireland for that purpose.

'In that cottage over the way more girls are at work on the famous Donegal homespun. There whoever cares to may see the wool as it comes from the sheep's back, see it washed, carded, dyed, spun into the threads for weaving by an old-fashioned spinning wheel and woven into the cloth. I call it an old-fashioned

spinning wheel because they know no other in the Irish homes and I sometimes doubt if such fabric could be made on any other. In every one of these cottages I reproduce exactly the same state of affairs that exist in Donegal, and if any one imagines that they are too primative they have only to remember that the girls and the work come from a place thirty-six miles from a railway in the very heart of Ireland and show the work that is now going on in hundreds of cottages where a few years ago all was idleness and poverty. If in my endeavor to show what good work these struggling people can accomplish and extend the horizon of their commercial sky I shall feel entirely satisfied with my task."

No attempt has been made to reproduce the interior of the castle, now a ruin. The large space has been divided into two rooms. One is a lecture and concert room, where during the summer Irish music is often given, and at stated times Mrs. Hart and others lecture on the subject of fostering by benevolence home industries among the poor. In the larger room is displayed the work done by the people. In none of the cottages are articles offered for sale. In the center of the large room in the castle is the huge statue of Gladstone by Bruce Joy, the famous sculptor and around the walls are hung portraits of famous Irishmen by well-known Irish artists.

Adjoining the castle is the village smithy. All of the tools and the fittings of the shop were brought over for the especial exhibit, showing just how the work is done at home. A very interesting feature is the Irish piper. He is a direct descendant of the MacSweenies of Donegal, at one time the most powerful of all the Celtic clans, and at regular times he plays old native airs on the pipes.

CHAPTER III.

THE JAVANESE AND SOUTH SEA ISLANDERS.

The Quaint Buildings of the Javanese a Great Resort—Everything as Neat as a Pin—More Than One Hundred People—And Such Tea and Coffee—Personal Appearance of the Javanese—Their Bamboo Dwellings—The Javanese Theater and Orchestra—Ten Attractive Dancing Girls From Solo—"Klass" and His Peculiarities—The South Sea Islanders—A Great Exhibit—Cannibal and War Dances.

HE Javanese village in the Midway Plaisance with its many quaint buildings of bamboo and still quainter natives, is one of the most genuine exhibits at the World's Fair. In its entire conception and down to the most minute detail, it has a fidelity to nature that makes many a traveler think himself in a far-off tropical island. This is undoubtedly due to the fact that it is the exhibit of the Java planters association and was entirely built by Javanese workmen of Javanese material. The plant being Dutch, they owning the entire commercial interests of Java, everything was done with the thoroughness that characterizes them in all they do. Famed the world over for its coffees, little is known here of Java teas, though they have already a high reputation in Europe because of their purity, strength and flavor, the soil and climate of Java being peculiarly adapted to the tea plant. There are forty grades of Javanese tea exhibited, the difference being in curing. The choicest is of young leaves picked in the early morning while the dew is still on them, and is very expensive. The high medium grade consists of these choice leaves and the next lower grade, is what they are serving at the tea house. This tea, which the Planters' Association is introducing here, is, like all Javanese teas, uncolored, for though they can easily make the green teas they will not do it because of their unhealthfulness, and it takes but two-thirds as much for a drawing as Chinese tea, more spoiling the fine flavor.

The tea served is from Sinajar, the largest plantation in Java, consisting of 5,000 acres, owned by E. J. Kerkhoven, who alone exported 1,000,000 pounds last year, and "Parakansolak," the plantation of G. Mundt who, with Mr. Kerkhoven, controls almost the entire tea product of Java.

Few people visit the Plaisance that do not inspect the Javanese village. It is as neat as a pin and its tea and coffee houses and theatre are the choicest on the Plaisance. It needs but a stroll through the village, to realize what beauties are to be seen. Nothing can be more perfectly entrancing to the female mind than to see a characteristic little family group seated upon the veranda of a bamboo house, in the

cool of the evening, enjoying the common meal. "How perfectly cute!" they say, as they watch a little brown-skinned mite of a child poking its tiny fingers into the common bowl of rice, and "cooing" with all the pleasure of an infant as it succeeds in catching a morsel of the toothsome food. It is a source of infinite pleasure, too, to some women visitors to watch the mothers playing with their children in all the abandon of a free and untrammeled race.

Bright red prevailed for the women's shoulder coverings. All wore the remarkable garment of the Javenese, which is made of a single piece of cloth wrapped around the body, and extending from the waist to their feet. Under the hot sun of Java this would have completed their attire, but protection against the March winds of the temperate zone required more covering. For the men this consisted of an old stock of trousers picked up somewhere at a bargain sale. They belonged to various pantaloon eras, ranging ftom the one when that garment was skin tight to the other extreme when flour sacks were the model. Coats of the same wide range of fashion had been found somewhere. But native instinct was superior to the garb of the more civilized races, for while the clothing of the latter had been put on the indefinable garment or sheet was wrapped around them still.

The Javanese women resemble the Japanese to an extent, except that the latter have lighter complexions. The expression, however, was alike in both.

Not so with the men. They had a far more stolid look than have the Japanese. They were darker and their lips were thicker. The keen intelligence which shows itself in the face of the Yankee of the East when in conversation, was absent from the countenances of the Javanese.

A man taller than his companions, with a much stronger cast of features, came last in the curious procession from the train. His hat was broad enough to shed an April shower and sloped down from the crown like the roof of his bamboo home. He walked with a stride and never glanced at the gaping throng. Twice had this man been to the shrine at Mecca. He bore the proud title of Hadji among the heathen Christian dogs. This man thought himself a pretty big fellow—any one could see that. He was brought along to attend to the religious welfare of his people.

When they become tired of work—which is about three times a week—he has a vision. Translated to the followers of the Prophet this vision is that unless they work and do what the officers of the Oceanic Trading company tell them to do some frightful calamity will befall their friends and relatives left in Java.

Of the 125, thirty-six are women. The dancing girls number ten. In their native tongue they are called serimpis, which means they are dancers who appear only before the Sultan at the Court of Solo.

At the Exposition they appear in their court dress. What they do is really more posing than dancing. The men are divided among the various crafts of the Javanese, and in their village during the Fair they are engaged in many curious occupations. There is one native chief among them whose name is Raden Adnin. He is distinguished by a large white hat of about the same size as that worn by the

priest. It is so large that when he enters the door he has to take it off for fear of breaking it against the casings.

The Dutch East Indies exhibit, of which the Javanese village forms a part occupies five and one-half acres on the Plaisance.

This is not the first time that the Javanese have visited world's fairs. A number of dancing girls from the Emperor's court at Solo were taken in the village which was sent to Paris in 1889. The girls became so giddy among the gay Parisians that the Emperor was highly displeased when they returned, and it was only with the utmost difficulty that he gave his consent to having any brought to Chicago. None of those who went to Paris were allowed to come to Chicago.

All the houses of the village were built in Java, and left standing until the ship was ready to sail. There were not less than twenty-five of them built for the Exposition.

The imagery of Oriental poetry has given to Java the name of "The Pearl of the East." The village is a little Java in itself. There is the same tropical vegetation, broad-leaved palms and willowy bamboos, the same curious huts, standing above the ground on stilt-like legs; and the people themselves, with all their peculiarities of language and dress, strange habits and customs.

The Javanese village is populated by a crowd of pretty dames and stalwart men, who amuse, instruct and edify the American, and load him with souvenirs of the Fair, certainly at some cost to his pocket, but also greatly to the benefit of his knowledge of his fellow men.

Nominally Java's 22,000,000 people are ruled by native sovereigns, but practically it is a depen dency of Holland, the Dutch having held a master-hand in the island for two centuries.

The personal appearance of the Javanese, as befits a peaceful, agricultural people, is pleasing. They are small in stature, well-shaped, gracefully slender and erect in figure. Fashion demands long hair, and among the upper classes a bright brown complexion, bordering on golden yellow, is the rule. The women are pretty and at all times gentle and obliging. In a country where the earth poduces freely almost all the necessaries of life the people are naturally an easy-going, good-natured race, and inclined a little to indolence. When a Java villager grows more than unusally lazy a tornado lifts his house off the ground, or a volcano bursts like a boiler, and sets him to work repairing damages. When the volcanic isle of Krakatoa suffered an upheaval in August, 1883, some 30,000 Javanese were placed beyond the possibilities either of repair or reformation.

The majority of the huts in which the World's Fair villagers live consist of simple bamboo structures, containing two or three rooms and surrounded by a verandah. They are windowless and thatched with sago palm trees.

Within, the furniture is simple. A springy bamboo bed and a few mats and pillows are sufficient for the lower classes, but the chiefs find place for a few articles of European make. The houses are surrounded by a fence and generally half-concealed by masses of vegetation. A man who desires to eat in a Java hut will take his food from a wooden tray at the expense of his fingers, squatting the while on

the floor. He may get dried ox, deer, goat, or buffalo meat, but rice with curry and cayenne pepper must be the principal dish, with white tree-grubs as a relish.

The first object of the men who introduce Java to Jackson Park is to improve the commercial relations between the two countries and induce trade,which has hitherto taken a circuitous route through Holland and England to follow a more natural and direct course. The coffee plantations of Java are their most prolific source of trade with foreign countries. The land, however, yields excellent crops of rice, tobacco, sugar and some cotton. The manufactures of the country are few and simple. The natives are very skilful in weaving and dyeing cloth for their own use. The man who can forge and temper the blade of the deadly "kri," the weapon universally carried by the natives, is sure of a good living. On the coast, fishing and curing occupy the time of a large proportion of the population. The weavers, goldsmiths and silversmiths are all seen at work at the Fair.

The Javanese theater is built entirely of bamboo, with a flat floor, and is thatched like the cottages. On each side is a curtain which is roofed lower than the main ceiling. It seats 1,000 people, and from each corner on the outside extends long curved palm poles which look like the tentacles on the butterfly's head. The walls inside and out are covered with split bamboo matting painted in squares. The stage is a four-decked affair. That part which is used by the performers is three feet from the floor, extends entirely across the building and is nine feet deep Back of this are three smaller stages, each three feet higher than the other, and are occupied by the musicians. There are no wings to the stage. The performers enter from the back, the three smaller stages being cut off at one end to make a narrow passageway.

A Javenese orchestra is a thing to be wondered at. Nothing like it can be seen in the Midway Plaisance. It consists of twenty-four pieces and the names by which some of them are called would tax the powers of a loquacious American commercial traveler for a music instrument house. Here are some of them, Djenglonglentik, bonanggedch, sarongpekinlentik and kenongpaninga.

The peculiar thing about the orchestra is that it has only one wind instrument and one string instrument. The string instrument is a two-stringed violin and is played by the leader, who sits in the center of the first stage. The violin sits upright in a frame and is played like a cello. The wind instrument is a small bamboo pipe, which makes a sound not unlike a flute. The other pieces are gongs and metal and wood exonophones. The gongs range from huge copper disks, four feet in diameter, down to brass affairs the size of a saucer. They are placed on blue and gilt frames and are struck with soft hammers.

After running the gauntlet of barbaric discord that passes for music in most of the Plaisance theaters, it is a pleasure to hear the harmony of the Javanese band with its suggestion of soft chimes. The deeper-toned gongs, the purling notes of the instruments that carray the upper notes, produce a combination of unexpected sweetness. Even the ardent worshiper of Wagner would enjoy the grave-faced musicians and their productions. The author was present at the first performance. The first piece on the rehearsal program

bore an unpronounceable title and a strange resemblance to the German master's "Die Walkure." It has been played in Java for nearly 400 years, and it is one of the best compositions by native composers.

The advent of the dancing girls was heralded by a long roll on the gongs, which increased in tone until the center of the stage was reached. Then the music changed to a strain as graceful as a Strauss waltz. The girls were barefooted and bareheaded and dressed in bright colors. Each carried a sash, which she waved about as the dance progressed.

There is something poetic about the movement, which is not unlike the Spanish dances. One after another danced, and they entered into it with a zest which showed that they enjoyed the rehearsal.

After the dancing several of the actors rehearsed one of the regular dramas which is played daily. It is a historical piece. None of the actors speaks a word. It is all spoken by one man who stands at one side while the actors pantomime his words. The dresses are very singular and some of them are grotesque. All wear leather helmets of red and gold. The lower dress is the ordinary street costume. Wings of leather, gaily decorated, are worn and the face is covered with a wooden mask. The masks are not tied on but are held in place by a bit of leather fastened to the inside and held in the teeth. If an actor opened his mouth to articulate the mask would drop off.

Mr. Mundt said one day: "All of the native clothing of Java is made in this fashion. If you will but notice the cloth and see how delicately the colors and tints are blended you can form some idea of the care required in placing the cloth on the matrix, for it is all gauged by the hand and eye. It is little wonder that the women become rather aged before they are expert.

"Our exhibits include all the products of the entire Malayan archipelago, as well as the manufactured goods. We show brass and reed musical instruments, native weapons, palm leaves for cigarette wrappers, rice spoons, insects, all of our spices, silver and gold filigree work and large quantities of our tea and coffee. We also show how we make fires without matches, and many other things."

Perhaps the greatest attraction at the Javanese village is "Klaas." Klaas is an orang-outang and the only one in captivity. He is owned by Mr. Mundt of the Java exhibit and is the pet of the entire village. He is 2½ years old and weighs 140 pounds. He was born in the Bataak district of Sumatra, where the natives still indulge in holiday feasts off white strangers, and, when that source fails, eat each other with an occasional flavoring of orang-outang. The impressions Klaas received in early life still remain with him, and, once in awhile, when some particularly choice little boy comes near him, he shows his teeth and smacks his lips. Klaas' lips take up the best part of his face. His eyes, nose, ears and forehead are very small and lips predominate.

The first thing he did when he got into the cage prepared for him was to stand still and look around. It pleased him and he laughed heartily, stuck his arm through the bars and shook hands with Mr. Kirkhooven. Klaas' laugh is a study in noise. First he throws his head back until it touches his spine; the chin is dropped

to the breast bone and the sound emitted is enough to make the steam siren on Machinery hall feel like going out of the business. There are two crossbars in the big cage and a branched section of a tree. Klaas started in to inpect these while the Javanese watched him. He climbed to the top, hung on to the bars, put a long arm out and got hold of a branch from a neighboring tree. He broke off a small limb before he could be stopped and dragged it into the cage. An unavailing attempt was made to get it away from him. Klaas knew his business and was not going to be interfered with. He stripped the leaves from the branch, bent it over the trapeze and caught the two ends in his mouth. One foot grasped the trapeze, the arms were folded and the orang-outang enjoyed a swing such as his father enjoyed on the tree tops in Sumatra before the cannibals got him.

While the orang-outang was enjoying himself a blonde young man with a pad and pencil made a sketch of him. Feeling sure that his artistic excellence would call forth some recognition even from an orang-outang the artist handed the sketch through the bars. Klaas received it, put it on the floor of his cage, spread it out with his hands and gazed first at the picture, then at the artist. Finally he put the top of his head on the paper and when he lifted his face it was covered with a pitiful smile. He handed the paper back to the sketch artist with a get-a-camera look. The condemnation of the work would have pleased a believer in the Darwinian theory of evolution. The artist took it to heart and went away and the Javanese looked sorrowful and scolded Klaas for his discourtesy and lack of artistic appreciation.

The scolding put his orang-outang highness in a bad humor and Mr. Mundt gave him some apples to pacify him. He could have easily have put the whole of a pomological specimen in his mouth at once, but he took small bites at a time and after each bite wiped off his expansive lips with the back of his hairy hand. The apples disposed of, a basin of water was put in the cage and a piece of soap handed between the bars. Down he sat before the basin like an Egyptian drummer before his tomtom. After wetting his hands he took the soap and scrubbed them. The same performance was repeated on his face. He got some of the soap in his eye and hopped around like an Irish cottager at a cross-roads dance and emitted an Algerian yell. A towel was handed him. He tore it in two and with a piece in each hand dried his face and smiled.

Civilization has given Klaas the cigarette habit. He would rather smoke cigarettes than eat terrapin a la Maryland. A cigarette was handed him after his bath. It was not one of the ordinary wheeze-producing, death-dealing kind in white paper. Klaas draws the line against those. It was a Javanese affair made out of a great deal of palm bark and very little tobacco. He took it between his thumb and finger daintily and held out the other hand for a light. A lighted American cigarette was reached out to him, but he would have none of it. Match or nothing with Klaas. He got one, turned so the wind would be on his back, and lighted the cigarette. The end of the cigarette is very small, and it took up about as much space on his lips as the whaleback steamer does in Lake Michigan, but he managed to blow smoke deliberately into the face of the artist,

who had been induced to come back and try again. Except when he is smoking Klaas is never quiet for a moment, and as a contortionist is entitled to a gold medal. As a rule his hold on the bars is sure, but when he does slip and fall he has a way of lighting on his shoulders perfectly limp, and after his tumble he invariably laughs at his own awkwardness. A railing has been put around the cage to keep visitors from getting to near. Klaas has a mania for shaking hands, and with a never-let-go grip. By nature the feet can be used for the same purpose and when Klaas gets hold of a visitor's hands the odds are two to one in favor of the orang-outang.

Across the street from the bamboo fence of the little people from Java is the colony of South Sea Islanders. No more unlike people than these near neighbors are to be seen in the Midway. The Samoans are big fellows, of stout build, yellow in color. The Javanese are small, angular, and of bronze color. They build houses, have wares of their own manufacture to sell, and are sociable. The Samoans do nothing but sing and dance about war. They dress for the stage in breech-clouts of cocoanut cloth with bunches of the same and of sea grass fastened about the loins and standing out like short and stiffly starched skirts. For lazy-looking people the Samoans get a great deal of life into their dances. Their plump limbs and bodies glisten with perspiration as they jump and stamp. Their naked feet come down upon the stage in perfect time with tremendous slaps. Their "ailann," an old Samoan war dance, is done with war clubs which look like short paddles. They swing these first to the right, and then to the left, and bring them down on the soles of the feet with a resounding thwack. The "pater" is another Samoan dance. A song goes with it, and the words are so old that the present singers do not know what they mean. Each stanza ends with a cheer. The Samoans dance to their singing. The rest of the music is simply drumming on logs of wood. In one of the dances the islanders accompany the feet movements with hand clapping. In another they sit cross-legged on the floor and raise themselves half-way and lower themselves again in time with the chant.

Next to the Javanese, the Samoans are the best-looking people on the Midway. They introduce more variety than any of the others into their dancing. Their pantomime is wonderfully good.

The Samoans boast of being the oldest inhabitants of the South Seas. The dances they give are so many chapters of their ancient life. A thousand years ago their Fijian ancestors danced in just this way. The chants recite the various phases of life and war. The dancing is the pantomime which naturally goes with it. The most notable dance tells of the departure from home of an expedition. The movement of the boats, the throwing of lances, the rush through the waves, the clash of battle, the mourning for the dead, are all told in the song and the dancing.

The Samoans may be seen six times daily in imitations of war dances and drills. The author visited the Samoans upon one of their gala days in June, and saw about as happy a crowd of South Sea Islanders as has ever existed. They had plenty of kava to drink; they were permitted the luxury of greasing themselves

from head to foot, until they shone as bright as so many burnished copper statues; they shed American clothing and got down to the simple but comfortable toggery of Samoa, all but the women, who modestly wore waists of colored cloth made from bark; and then they danced and sang as they do on starry nights under the beautiful cross of the southern skies.

It was plain to be seen early in the day that something of more than ordinary import was stirring the inhabitants of the Samoan village. The big muscular fellows were in the buff to the waist, and they dodged from building to building in a mysterious manner. The women were squatted on the ground in Mataafi's thatched palace grinding kava and making the great national drink as though for an important ceremonial. Everywhere there was an excited jabber in the village like the chattering of a lot of magpies.

Kava is made from the root of a pepper tree. It is ground by the women on a rude grater into a flour, which is thrown into an iron dish filled with water. It is allowed to stand long enough for the root to impart its flavor to the water. Then the pulpy mass is put into a piece of bark, which acts as a strainer, and the maker twists it as though wringing a towel. All the water is thus squeezed out, and the solid substance remains. Kava is about as intoxicating as mild beer. The Samoans love it dearly, and think it quite as indispensable as the German does his beer. It is particularly abundant during their pagan ceremonies.

In the afternoon the South Sea Islanders gave some of their dances. The men wore rude kilts made of the bark of the paper mulberry tree. The bark is beaten out until it looks like sheets of paper, when it is dyed in bright colors. From the waist hung grasses and fuzzy garnitures of cloth. From the loins up, and from the knees down the men were naked and greasy. The women were similarly attired, except that they made the one concession to American taste of wearing red bodices to their bark paper gowns. Many of the performers wore high paper caps, which may have escaped from the bonbon favors of a fashionable Chicago German.

Their first effort was a mild war dance in which they used a *la-au*. The *la-au* is a wooden affair that might be taken for a paddle or a broken spear. It is neither, because it is simply a dancing club. The dancers sing a wild chant, slap the blades of their *la-aus*, jump on the floor with a thud that shakes the building, look fierce, and send yells of defiance after an imaginary enemy. Their second effort was a drill and the company responded by jabbing holes into the air and whirling the *la-aus* after the manner of white men who give bayonet drills.

In the cannibal dance, which the Samoans borrowed from the Fiji Islanders, the big blacks sat on their haunches with their backs to the audience. They set up a weird droning, and marked the time by clapping their hands. They hopped high into the air and swayed backward nearly to the floor. They faced the audience with a nervous jump and twisted their countenances into ferocious contortions. They went into convulsions that threatened to unjoint their bodies, but through it all they kept up the droning, which was a song recounting the incidents of their supposed fight.

Men and women joined in a Samoan dance of rejoicing. They sat cross-legged, slapped their knees and clapped their hands. One of the women sang an air in a not displeasing soprano, the others sang in concert, little wooden drums beat the time, and the knees went flippity-flop in sympathy with the rhythm. The whole troupe jumped to its feet, hopped about in a circle, clapped its hands and engaged in what sounded very much like a responsive song service. Then everybody strolled out to Mataafi's house, squatted on the mats, and drank kava.

In front of the entrance is erected a Samoan house. It is the property of Mataafa, the deposed ruler. It was brought from the little settlement of Malie, several miles from Apia, and is most wonderfully constructed. In shape it is circular. It is upright to the height of five feet and then slopes to a tent-like point thirty feet above the ground. It is made entirely of bread-fruit wood, the only wood that the white ants, which overrun the island, will not eat. A house built by any other material would be eaten up in a month by the pests. The uprights are made of pieces about four inches in diameter. At intervals of four feet a circle is made of the same material. The pieces of wood are all short and are jointed and bound together by thongs. The roofing is made of twigs and covered with thatch. The house was used by Mataafa and his father and is said to be very old.

The home dress of these people is very scanty. It consists of nothing more than a wide strip of tapa cloth about the loins. Tapa is made by the natives and is a product of the bark of the mulberry tree. Strips of the bark 1½ inches thich, 2 feet long and 4 inches wide are stripped from the tree. These are taken to the river, where women and girls subject them to a crude process of tanning by soaking the bark in water. It is then placed on a malili wood board and the surface scraped by a rough shell, leaving the inner bark. This leaves it a pulpy substance. The small strips are overlapped and the edges pounded together until a piece is made the required size. To color the cloth in designs a die is made of a half-oval board of pau wood, over which colors made of native barks and roots have been smeared. The prepared cloth is spread over this and the print is made. All kinds of designs are used and the drawing is very crude, but the printing is done with geometric accuracy, although the eye only is used.

The village is under the control of H. J. Moores of Apia, who is the confidant of Mataafa and who will in all probability be his prime minister if he returns to power at the next election.

AN ARABIAN FROM MIDWAY PLAISANCE.

CHAPTER IV.

THE GERMANS AND AUSTRIANS.

Cottages From the Black Forest—The Town Hall of Hesse—Westphalia and the Banks of the Rhine—Glimpses of Berlin and Bavaria—A Reproduction of One of the Streets of Old Vienna—Forty-Eight Stores—The Emperor's Own Band—The Cost of the Village Nearly $130,000—It Opened With a Banquet.

NO display in the whole great exhibition at Jackson Park combines in itself so much calculated to awaken American curiosity and German interest as the German village on the Midway plaisance. Cottages from the Black forest and Westphalia cluster round a typical town hall of Hesse, and homes from Bavaria and the Rhine add a quaint, old world flavor to the grouping. Dominating all a mediæval keep of the sixteenth century casts its broad, protecting shadow across the picture which has been worked out into a veritable cameo of the Fatherland. Every architectural detail has been lovingly reproduced with such care and truth that one passes out of the Chicago street into Deutschland at a step. Nor is the setting all. The German village has its origin in the patriotism and public spirit of two of the great banks of Berlin, the Deutsche bank and the National Bank fuer Deutschland, and in the fertile brain and energetic conduct of Dr. Ulrich Jahn of Berlin. In its present shape the display is the result of the best thought of such men as Prof. Virchow, rector of the University of Berlin; Baurath Wallot, the famous architect; Prof. Eugene Bracht and Prof. von Heyden; A. Voss, the ethnographer, and Meyer Cohn; and certainly the village is a credit in every way to its designers. The ethnographic museum is especially good, and the costumes and armor make the finest collection of the sort ever gathered together for exhibition in America.

Besides the museum and the cottages the village offers many other attractions, not the least of which is the magnificent music of two uniformed bands organized by Herman Wolff of the Philharmonic at Berlin and by Rossberg, who is the final authority on all musical matters in the German army. These bands play in two pavilions in a beautiful summer garden which has in it tables and chairs enough to accommodate several thousand guests. In connection with this part of the display is the restaurant, which carries out strictly Berlin ideas and Berlin methods, and to make the resemblance to the old country lustgarten all the more striking the beer of Bavaria, the Wuczburg Hofbrau, and the wines of the palatinate are not altogether inaccessible.

The German village in all of its departments is under the management of C. B. Schmidt, and to this fact its practical success will be largely due. Mr. Schmidt as immigration commissioner of the Santa Fe railway has probably more friends on both sides of the Atlantic than any other gentleman in Chicago, while his tact, courtesy, and proved executive ability combine to make the display one of the most popular as well as one of the most valuable and instructive and pleasant at the World's Fair. One feels that he is in Germany every time he visits the German village.

A center of attraction for all passers-by on the Midway Plaisance is the beautiful Vienna cafe, or Old Vienna, with its 40 shops, which reproduces not alone the fine architecture but the delightful cookery of the imperial city of Austria. And it is the cookery which appeals most strongly to the wayfarer. Charles Earnest, the manager of the cafe, who came from Delmonico's of New York to take charge of this enterprise, is known to gourmets the world over as a past master of the art of dining. Equipped with unlimited means and gifted with a genius for catering, Mr. Earnest brings a cosmopolitan experience to a cosmoplitan task. He has managed restaurants in Paris and Vienna, as well as in Rome and London, and he can sympathize in half a dozen languages with the artistic appetite that has been educated on the Boulevard des Italiens and given its doctor's degree on the Ring strasse.

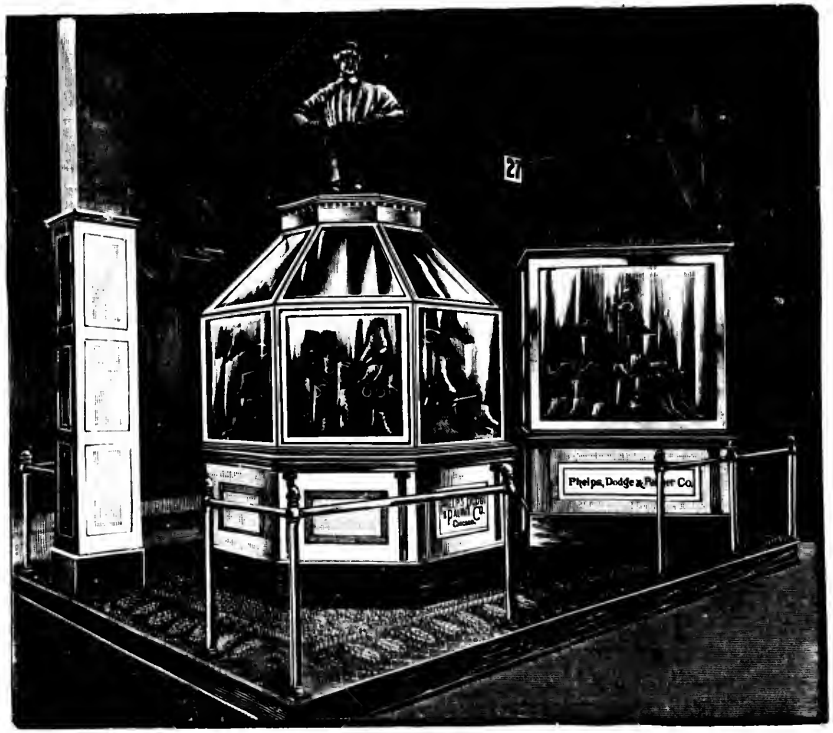
Messrs. Koenig and Griesser, the proprietors of the cafe, deserve the congratulations of Chicago for the admirable manner in which they have carried out every detail of their excellent idea. Mr. Koenig came to America with the prestige of having successfully conducted one of the largest cafes in Vienna. The cafe is one of the most attractive parts of the whole World's Fair and neither money nor brains has been spared in completing it. A magnificent orchestra under the direction of Prof. Julius Schiller is a component part of the attractions provided, and the quick and experienced service, the elegant cookery, and yet thoroughly Viennese, economical scale of prices, and the whole foreign, old world flavor of the cafe bring to it the success it so well deserves.

There have been as many as 4,000 people at one time in Old Vienna. The village occupies the largest space in the Plaisance. Its charm lies in its antiquity. The reproductions are of Garben and Bogner streets, Vienna. These are the oldest and best-preserved streets of the Austrian capital. They were built 200 years ago under the protection of the Archduke Ludwig Victor and the Imperial and Royal Lander Bank of Vienna. The buildings, which form a large court, are exact reproductions of the old streets. Even the cracks in the ancient walls are facsimile.

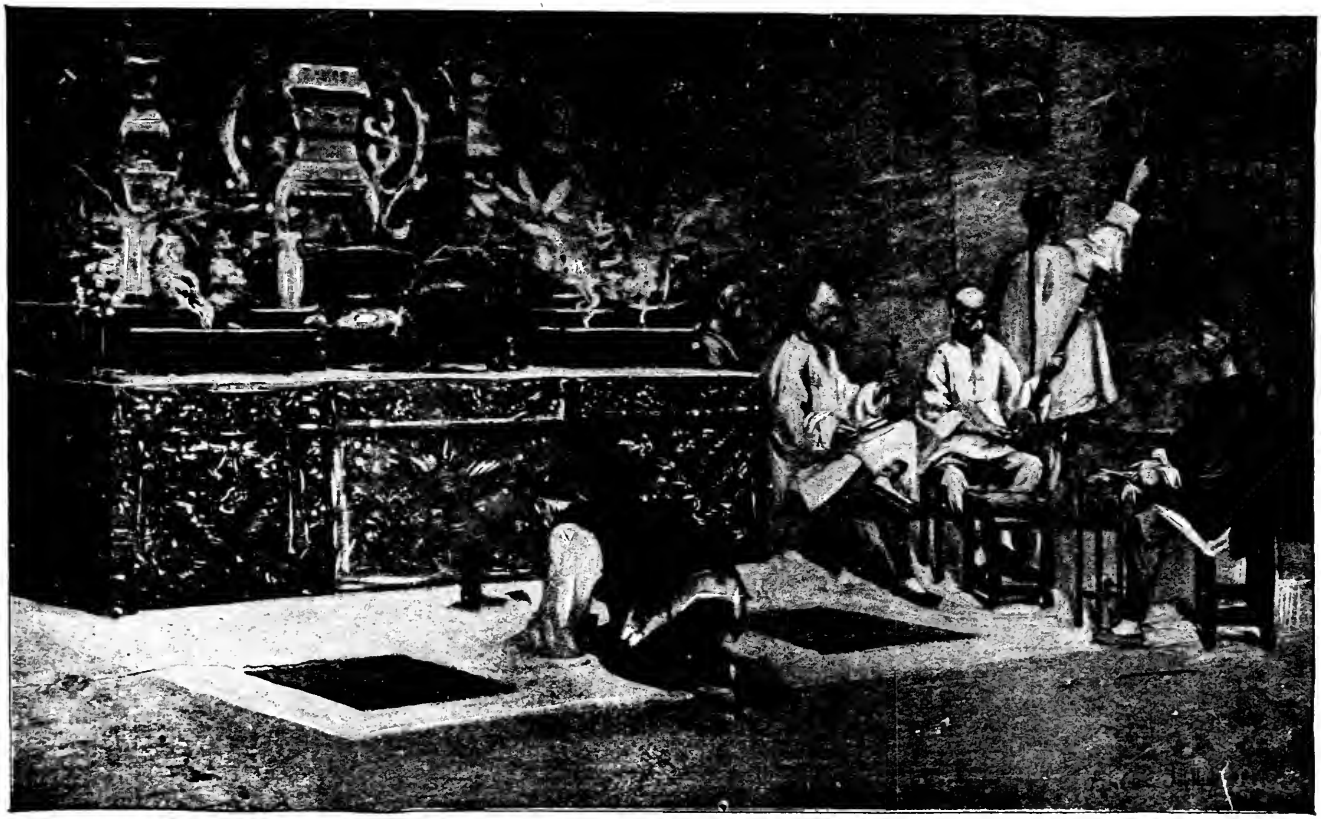
The design creates the impression of a part of an ancient city built up with great irregularity, and presents old, gable-end houses with frescoes and shields, and these open up a prospective to small, narrow streets. The council house, with outside staircase and covered way, stretches along the entire distance of the square, in the middle of which stands an ancient well. The shops are built after the fashion of former times, and there only special Viennese products are sold.

It is not necessary to draw on the imagination in the Vienna village to become imbued with a foreign influence. There is nothing modern to meet the eye except the Columbian Guards. The first floors of all the buildings are fitted up as shops. Viennese women are on guard in nearly all of them, and the bank, under whose assistance the street was built, has a branch in the village, and the office is fitted up in the same style as the original institution, founded 300 years ago.

In the center of the court is the bandstand, where the emperor's own orchestra gives daily concerts. In the garden the tables are ancient and the barmaids are dressed in the black and yellow of Austria. All were brought over from Vienna. The village cost $125,000. Early in June the managers gave a banquet to the Columbian officials and others. The guests were given many an Austrian toast, which in plain English was "Drink and be merry."



THE ABOVE IS A VIEW OF PHELPS, DODGE & PALMER COMPANY'S EXHIBIT AT THE WORLD'S FAIR.



CHINESE JOSS HOUSE.

CHAPTER V.

AMONG OTHER NATIONS.

The Village of the Almond-Eyed Mongolian—The Electric Theater—The Libbey Glass Works—The Ferris Wheel the Greatest Piece of Machinery in the World—Pretty Imitation of La Tour Eiffel —Carl Hagenbeck's Menagerie—The Big Black Dahomeyans.

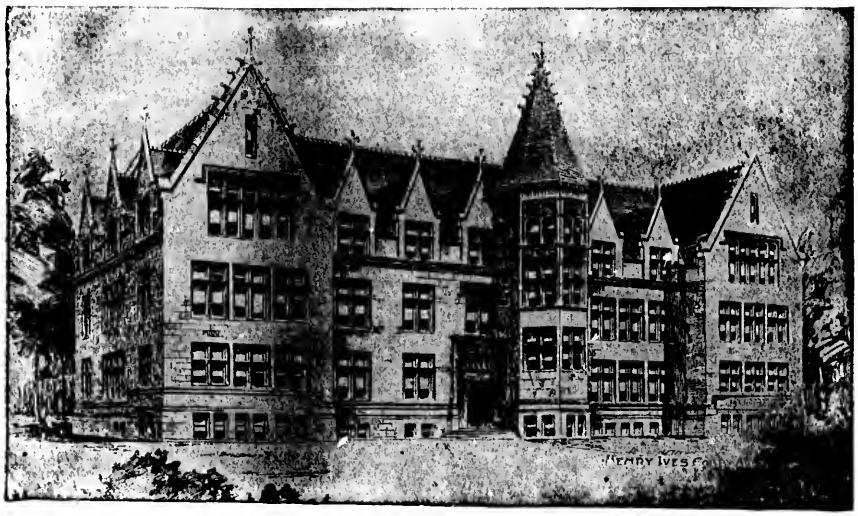
AMONG the other villages is that of China. The peculiar bell-shaped minarets and pagodas stamp the architecture distinctive of far away Cathay. Here the almond eyed Mongolian is seen as at home and not as "Ah Sing, laundryman." The main building in the group is 100x150 feet and 80 feet high, exceeding large for a house in the native country. The coloring is most unique. Beginning at the bottom the successive panels are painted the prismatic colors in regular order, starting with the violet edge of the rainbow. In the center of the building is a splendid garden filled with rare shrubbery from the "Flowery Kingdom." A little further along is the tea garden, showing the methods of raising, drying and packing of tea; here one can secure a taste of this beverage, minus sugar and cream in most approved style. On the second floor are shown samples of the Chinese literature from time immemorial. Beautiful works of art, painting, pottery and bronze, in whose workmanship they are so renowned, are exhibited extensively. One gallery is devoted to a temple with priests and attendants revealing the methods of worship and the display of idols and brass and ivory gods. Joss occupying the post of honor on a high pedestal. Gay lanterns swing from every projecting beam, balcony and gallery, while every door and wall is emblazoned with their gaudy signs in black, red and gold. A museum with artistic wax figures and designs from human models and relics of the time of Confucius. There are also bazaars and shops innumerable where silks, curious, trinkets; ornaments, and samples of native teas, can be procured as souvenirs.

But while every phase of the life of the people is represented, perhaps the the most interesting is the Chinese theatre. The music which seems to be the principle part of the performance is simply horrible; the orchestra plays upon a variety of instruments unknown to the English dictionary but somewhat resembling violins, guitars, drums and gongs. The musicians work like blacksmiths and the loud cymbals, triangles and braying wind instruments keep up a constant din; their concert, a succession of squeaks, rattles and bangs, ludicrous in its quieter intervals, and hideous in its more violent fits, provokes wonder at the taste of the nation which could

CHINESE JOSS HOUSE.

SNAKE CHARMER, MIDWAY PLAISANCE.

invent, tolerate and enjoy such discord. The acting is all done in front of the musicians and no women ever appear upon the stage, their characters being taken by men who talk in a sing-song tone and falsetto voice, completely deceiving the listener. The play is usually of some alleged classic drama or scenes in the life of some military hero and usually runs through several days. There are no stage curtains or shifting scenes and if they wish to convey the idea that the scene is in a forest, a bush on top of a chair is brought to the front of the stage, while the seashore, a field, the street, interior of a palace or a hut are all suggested by similar devices or symbols. When an actor falls in war or passion, instead of being carried off or hidden behind a drop, he usually gets up and trots off. The costumes are a mar-



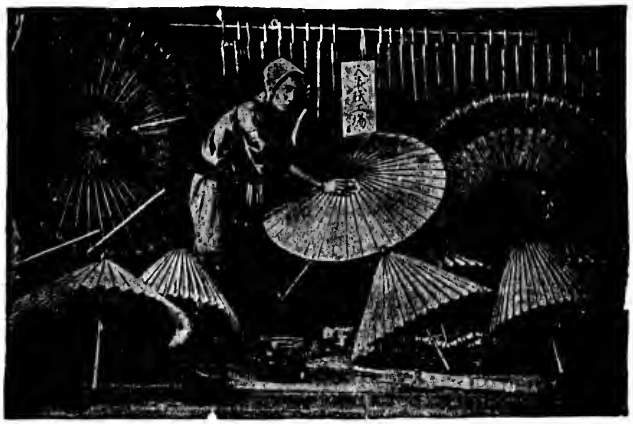
KENT LABORATORY CHICAGO UNIVERSITY.
Near Entrance to the World's Fair.

vel of gaudiness but devoid of all elegance. The troupe here is considered by the celestials to be a representative one and great crowds throng to experience the pleasure of an unintelligible Chinese show.

One of the most charming places for a stay of fifteen minutes is the Electric Theatre. The theater itself is one of the unique things of the Plaisance and of the Fair. The seating capacity is 100. It is lighted by electricity, cooled by electricity, and the performance is purely electrical. It is called "A Day in the Alps." The stage is an opening of about six feet, which shows a most perfect Swiss scene. In the distance are the snow-covered peaks and the valleys, and in the foreground the foliage and pleasant homes, and everywhere the clear blue atmosphere characteristic of Switzerland. The opening scene is just before daybreak. There is a faint glimmering of stars before the sun commences to touch up the snow-topped moun-

tains. As the light of day dispels the mist of darkness, you can hear in the distance the peasants singing the "Jodel." Then a storm comes up and the flashes of lightning and the thunder make the audience instinctively gather themselves a little closer in the dark theater to get out of the rain. The sunset comes with the "Alpine glowing," then darkness and starlight, with the singing again of the peasants somewhere in the background. The moon comes creeping up behind Mount Blanc. The white snow glistens and the whole scene is so perfect that, as the curtain falls and the lights are turned on again one feels as if one had just returned from Chaumonix and no mistake.

Just the handsomest thing in the Plaisance is the Libby Glass Works. Here swarthy Arabians, Egyptians, Turks, and Persians, and the blue-eyed, light haired children of the land of the Norse meet together on a common level and vie with each other in the keen enjoyment extracted from the wonderful handicraft of the glass blowers. A common medium of enjoyment is Charles A. Barry, the well-known linguist, who in addition to being a graduate of Michigan university, speaks, reads, and writes fifteen foreign languages with extraordinary ease, and the pleasure a composite group of foreigners takes in meeting with him is shown in the brightening faces when he speaks the tongue each loves so well to hear spoken in this strange land.



JAPANESE UMBRELLA MAKERS.

The factory is a model of completeness and has never been equalled in any previous exposition.

Early in July a new feature was added to the exhibit which delighted the visitors greatly. Spectators for a small sum each were allowed to "blow," and the funny results of many attempts to do the act with neatness and dispatch kept the great crowds in excellent humor.

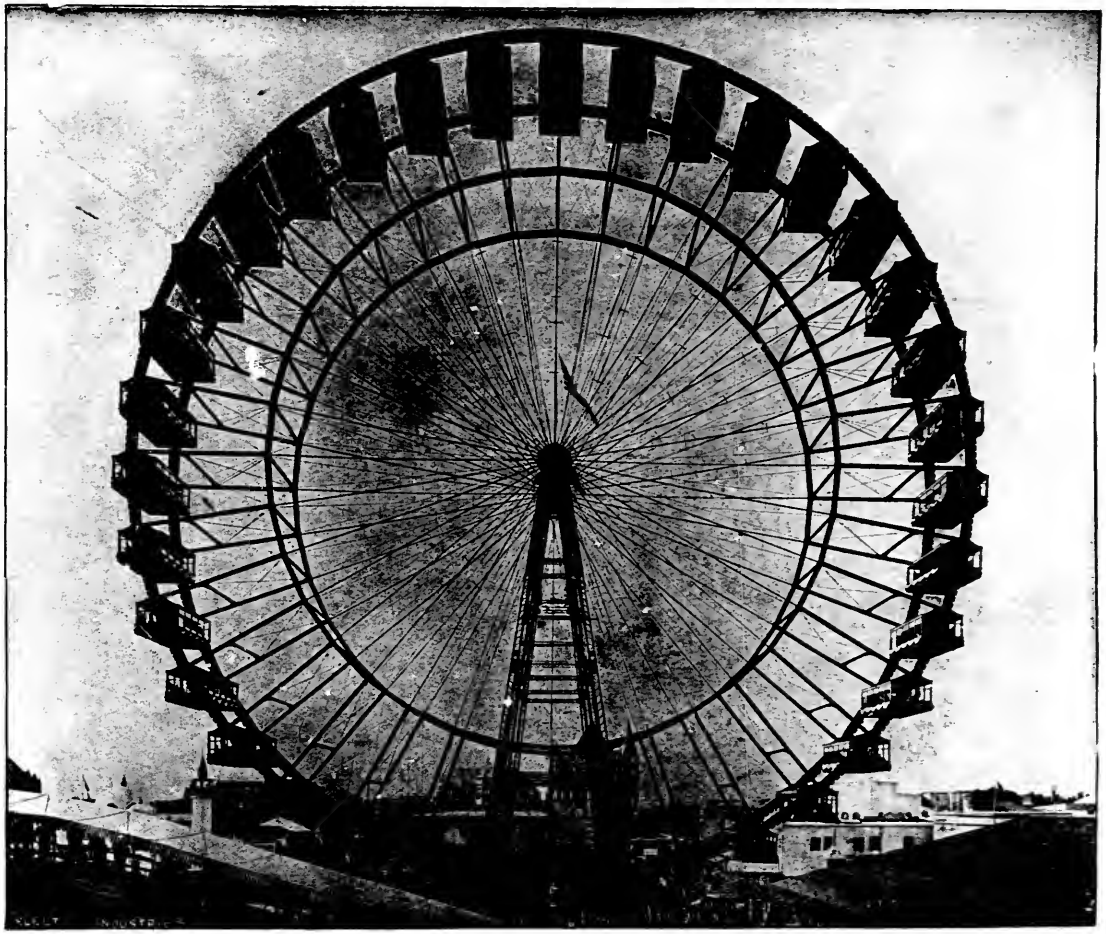
The cutters and weavers attract most general attention. The cutter performs the most important part in the production of modern glassware, and his skill is of the highest order. The work of cutting is regulated entirely by the eye and an intricate pattern requires many days of constant manipulation. The cutting is done on a Bessemer steel wheel, upon which drops from a hopper fine moist sand that forms a cutting surface. The sand-coated wheel cuts deeply into the glass leaving a miter which represents the first part of the cutting process. Then the

glass is carefully smoothed by contact with a fine sandstone wheel, after which it is polished upon a rapidly revolving wooden wheel, sprinkled with putty powder. Then the article is ready for market. Some of the cut-glass articles made by the Libby company demand prices which reach away up into the hundreds of dollars.

Glass weaving or glass cloth making is a process in which the rug-making Persian takes especial delight, and never fails to attract a crowd. The blower takes a glass cane, which may be white or colored, as is desired, and places it in a powerful gas flame, which quickly melts it. When it reaches the proper consistency he takes a thread from the mass and carries it over to the periphery of a wheel six feet in diameter making 200 revolutions a minute. The wheel draws out the thread, and its fine silken strands encircle it. At the end of each minute the operator pushes his working table forward and a new band appears upon the periphery of the wheel. When the wheel is covered with these bands, each containing say 200 threads, the wheel is stopped, the glass bands are pulled off horizontally, and stretched on long tables. Here they are cut into desired lengths for weaving. They are passed to a girl at the loom, where it is deftly woven with silk—one thread of silk to 200 threads of glass—and then the glass cloth is ready to be put to its myriad uses. So soft and delicate is it that beautiful garments are made from it, and the company in its display department has some marvels of beauty in the form of lamp shades, screens, pin cushions, doll dresses, etc., made from it. A beautiful dress was made for Eulalia, by Mr. Libby, the infanta paying $2,500 for it.

JOHN BROWN'S FORT.

What La Tour Eiffel was to the last Paris Exposition the great Ferris wheel is to this. It is 250 feet in diameter, and from the ground to the apex it is 270 feet. It cost $400,000, and commenced to revolve on the first day of June. It is the biggest piece of revolving machinery in the world. Much has been written of the Ferris wheel, and the world is now realizing that Chicago has given birth to one of the wonders of the age. Cynical doubters have changed their tune; obstructionists, who said that if built it would never revolve, and at best would be a monstrosity, have had perforce to render homage to the ponderous yet graceful creation of the brain of Mr G. W. G. Ferris, of Pittsburg.



THE FERRIS WHEEL.

Apart from the criticisms of laymen, many engineers of skill asserted that it was a question if a hanging wheel, consisting of 1,700 tons of steel could be constructed to revolve, and certainly no man had ever attempted to put such an enormous mass in motion before. However, Mr. Ferris said that it could be done, and he found men who believed in him and his assertion, and who were ready to back their belief with good hard cash, and now as the turnstiles keep up a steady click all day, they feel that the financial prospect is rose-colored, and that their confidence was well founded.

Comparisons, they say, are odious, yet one cannot help comparing this wheel with the tower of the Paris Exposition. As the Ferris wheel is to our World's Fair we will repeat so the Eieffel tower was to the Frenchman's. As a mechanical achievement there can be little doubt that the palm belongs to us, for, wonderful as the Eieffel tower is, it was constructed on well tried scientific principles; but the Ferris wheel is a venture on unknown grounds. Twenty-five thousand dollars' worth of hard work and calculations lay in the building plans of this wonderful invention before a dollar had been put into construction, and the accuracy of the figuring is shown by the perfect safety with which it is operated.

JAPANESE BASKET MAKERS.

The difficulties contended with in building this immense structure in such a short time were tremendous. It was not until the 16th day of December, 1892, that final arrangements could be effected with the World's Fair committee, some of whom thought the idea impossible of realization. In an incredible short time Mr. Ferris had some of the largest iron plants in the East entirely devoted to his enterprise. The Detroit Bridge Company, of Detroit; the Carbon Steel Company, Jones & Laughlin, H. Lloyds & Sons, Cambria Iron Company, Wilson Snyder Manufacturing Company, Kepp Gear Wheel Company, of Pittsburg; the Walker Manufacturing Company, of Cleveland, and the Bethlehem Iron Company, of South Bethlehem, Pa., all did their share of work, as it was impossible for any one or two firms to turn out the material so that the wheel could be built for 1893, and it was a wonderful thing to see how castings made in so many different places were put together as if turned out from one plant.

The foundations, which extend for forty feet under the surface of the ground, had to be laid during the coldest weather of winter, and it was necessary to use live

steam freely in mixing the concrete to keep it from freezing. By the time they were completed the iron began arriving, long trains of it; and the work of erection began about the 25th day of February 1893. The lumber for the false work alone cost $12,000, and many wondered what was going to be built among that vast web of beams, reaching nearly 300 feet in the air.

Perhaps the most interesting feature of the construction was the raising of the main axle, the largest ever forged. This was turned out by the Bethlehem iron works and weighs seventy tons, but with the machinery in use was raised without any difficulty and dropped into its resting place as if it had always been there. Then came the work of hanging the wheel upon it. Beginning at the bottom, the heavy castings which form the outer crown or periphery of the wheel were hung one by one on to the rods which carry the weight of the wheel. Slowly the circle was completed and the last of the sections, each of which weighs five tons, was raised to the height of 270 feet to drop into its place. Meanwhile the machinery below was completed, and when the time came for the trial trip to be made the excitement was immense.

BRONZE VASE—GERMAN SECTION.

The model of the Eiffel tower, the attraction of the Paris Exhibition which seems to have left the strongest impression, is one of the quiet things of the Plaisance. This model is an exact reproduction of the original, even to the number of pieces of metal used in its construction, 650,000. It is twenty feet high, set in a miniature representation of a Paris garden about eighteen feet square.

In exhibiting the tower the room is darkened and the lights in the model are turned on gradually. A revolving glass lamp on the top of the tower first becomes luminous and sheds colored lights. Then the incandescent lamps in the elevators are turned on and the cars are seen gliding up and down their long shafts. There is a bright twinkle and the suspended lamps on the lower two balconies flash into beaded rows, to be followed an instant later by a square line of fire about the top balcony. The lamps in the streets, in the park, and in the newspaper kiosks are finally turned on and the whole exhibit stands out from darkness a beautiful miniature of the famous tower. In the center of the space covered by the latticed iron-structure is a small fountain, which becomes luminous with the colors of the rainbow under the effect of electric lamps. One obtains a good idea of La Tour Eiffel by this exquisite counterfeit.

Carl Hagenbeck, who built a one hundred thousand dollar arena for his wild animals, and sped back to Europe before the hot weather set in, had a great show

—something never before seen in America:—Lions, tigers, leopards, bears, dogs, and horses all living and acting harmoniously together. The menagerie consists of two elephants, seventeen lions, five tigers, five leopards, twelve bears, three dogs, four pigs, three goats, four sheep, one hyena, three horses, four ponies, two zebras, sixteen cases of monkeys, twenty-nine cases of parrots and five cases of storks. There are also several thousand ethnographical specimens from Africa, China, India and Australia. There are two women of the troupe whose specialty is to cow the tigers and lions of the menagerie by the power of the eye. There is also one man who can do more with wild animals than has ever been known in America. Hagenbeck's is generally conceded as the greatest show in the Plaisance, and nothing like it has been seen in this country. Hagenbeck's pride rests with his trained animals. Bears walk the tight rope and do the William Tell act, and ermine-mantled and crowned lions drive triumphal chariots around the arena drawn by royal tigers. Camels hump themselves on roller skates. The hippopotamus is not at sea on the trapeze, while the smiling rhinoceros offers a horn to any one willing to take it. Professor Garner has a dozen of hypnotized monkeys ready to converse with any intelligent visitors in their own language. Parrots that play progressive euchre and "differ" about the prizes in sixty-five different languages are also seen and heard. A superbly trained baseball team of mules provides great sport. Their "kicking" may not equal that of their human brethren but in other points they are equal.

ORIENTAL PADLOCK.

The world's most celebrated animal tamer, Miss Leibemich, creates a great sensation. She not only succeeds in subjugating the most ferocious beasts in the animal kingdom, but has taught them any number of tricks. It is always a great source of amusement to see the animals fed. The small boy is made glad while he watches the pensive goat dine on fricaseed scrap iron, with door-knob sauce, but that kind of amusement is really passe. Instead of this, Miss Liebemich shows to what degree of enjoyment of the pleasures of the toilet she has brought her pets. To watch the noble lion smiling at its image in the hand glass while its mane is being dressed is worth going far to see. The beautiful expression of contentment that illumines "hippo's" broad face while he is being shaved is in sharp contrast to that of the sulky tiger's, who evidently does not like the tooth powder used. The

huge boaconstrictor, according to reports, always enjoys his corncob pipe while he is flirting a little with his mistress.

Mr. Hagenbeck's particular treasure is the dwarf elephant Lili. This is the only specimen in the world of its kind. The little animal is about ten years old and was purchased by its present owner from a trader in Sumatra. It is only about three feet high, and not three and a half feet long. It weighs but 108 pounds, which is phenomenally light when one remembers that a full-grown elephant from that part of the world weighs up to 7,400 pounds. The little beast is of a very affectionate disposition and has been taught a number of fine tricks.

The Dahomeyans are big, and black-charcoal certainly would make white marks on their skins. The village is on the south side of the Plaisance, just beyond "Old Vienna." It is modeled something after Abomey, the capital of that country. The men are uglier than chimpanzees, and every one bears three cuts on each cheek, just like the women, who are scarred with the wounds of many battles.

At the woman's quarters, sights unusual to American eyes may be witnessed. The women lie around doing nothing, and wrapped up in dozens of blankets. Some speak a few words of English or French, but only words. Their own language is soft in the extreme, but they do not learn easily like the men, who pick up a language with singular facility. These women are all greasy, for they bathe themselves in oil, and paint their faces red with a powder formed from a kind of wood. The amazons are all unmarried, having taken vows of celibacy. A few of the women are wives, and are considered the property of the husband.

The men are strictly polite and salute each other and strangers with great punctiliousness. Big Tom guards the gate of the village. He is very polite, but no one can get past him without the personal permission of the manager, and as he is big and strong people don't try to.

One of the long, low houses is set off for a museum and contains all kinds of arms and trophies of Dahomey. Another is set off to represent the harem of the king, while there is still another called the "hell of serpents," where many kinds of snakes are tame and free. It looks grewsome to enter. The fetishes of the people are crowded in a house by themselves, though each house has its own peculiar fetish.

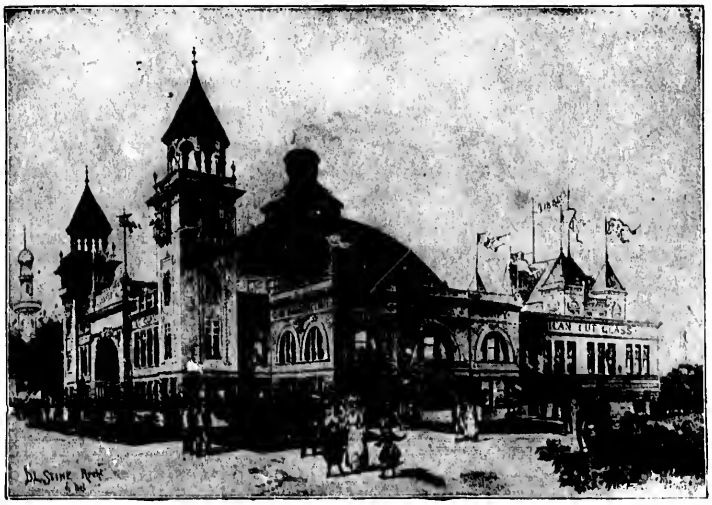
A more horrible-looking set of men and women it would be hard to find than these Dahomeyans and every effort has been made to illustrate their customs and peculiarities. War dances are given in a wide and roomy pavilion erected for that purpose and some of the cruel ceremonies of the country are represented.

The married women keep themselves warm stamping the ground with heavy stampers, singing all the time a monotonous "Ha-wha-wha-o-hoo." The married women do all kinds of heavy work, but the men do nothing except to make clothes.

All who saw these Dahomeyans may boast unpretentiously that he has seen two-score savage women, who are the equals in fighting capacity of the same number of picked French soldiers. These amazons are well-proportioned, clean-featured, muscular creatures, unusually intelligent for savages and possessed of phenomenal powers of endurance. They form the mainstay of the bloodthirsty King Behansin's

army, and before the French occupation of his capital they were the only part of the soldiery who were thought equal to the responsibility of properly guarding the palace. In the skirmishing about the sacred city Kana these women gave the French soldiers a practical example of their prowess by worsting the invaders in a number of instances where the forces pitted were equal in numbers. Incidentally it may be mentioned that the king reposed such implicit confidence in the intelligence of his women fighters that he supplied them with breechloading guns, while he left the men to fight with the ordinary native arms, fearing they could not learn to handle the European arms with sufficient skill to make effective riflemen in a short space of time.

There are many other places besides these more conspicuous ones on the Plaisance. There are Hindoo and Persian jugglers that throw all Hermanns and other renowned prestidigitators in the shade. New England Dinner cabins, Colorado Mining exhibit, several tribes of Indian, Parisian, Persian, Algerian and Soudanese dancing girls, a Miniature St. Peter's, Arabian horses and riders, cycloramas, many theaters, cafes, restaurants and gardens, etc., that can never be forgotten by any who saw them. Altogether there has never been in the world such a combination of so many kinds of peoples and their modes of living, warfare and industries, and which perhaps may never be repeated on the same scale of reality, picturesqueness, grotesqueness and attractiveness again. It is a harliquinade of the deepest and most lasting significance and a highway of savage and beautiful surprises, all sanctioned by the law of the land and the lights of the century.



LIBBY GLASS WORKS, MIDWAY PLAISANCE.

THE LIVE-STOCK EXHIBIT.

HERE has never been a live stock exhibit on the American continent equal to that which opened in the Big Pavilion at the end of the Fair grounds on the 21st of August. The barns on that day were filled with fine representatives of the leading breeds of horses and cattle. This great exhibit embraced over twelve hundred head of horses and 1,000 head of cattle. Many visitors who were interested in this department of the Exposition filed through the barns on the 21st looking at the fine animals in the long rows of stalls which were to be entered in the contests in the arena.

Hon. R. B. Ogilvie, ofMadison, Wis., one of the leading exhibitors of Clydesdale horses, said: "I will say that the exhibit of Clydesdales has never been approached on this continent and rarely, if ever, equaled in Great Britain, either in point of numbers or excellence of animals. I have been told by Mr. Sarby, of Guelph, Ontario, after he had looked over the stables here, that he felt more like crossing the Detroit river than the Atlantic ocean to find the finest Clydesdales. I also have it from Andrew Montgomery, of 'Nether Farm,' Castle Douglas, Scotland, unquestionably the leading authority on Clydesdales in the world, that some studs can now be found in this country which are not equaled in Great Britain."

Among the Clydesdale exhibitors here were N. P. Clark, of St. Cloud, Minn., president of the American Clydesdale association; R. B. Ogilvie, of Madison, Wis., L. B. Goodrich, of State Center, Iowa; the Live Stock association of Fort Wayne, Ind.; Colonel Holloway, of Alexis, Ill.; and the Canadian Government. M. W. Dunham, of Wayne, Ill., exhibited fine stables of Percherons, French trotters and coach horses.

Of special interest to Americans were the great exhibits of the Russian and the German governments, the former showing Orloff trotters and the latter the celebrated coach horses of that country. The imperial stud of his majesty the Czar was well represented. There were also fine specimens of English hackneys and Cleveland bays, the latter being the celebrated coach horses of Yorkshire.

In short, the best representatives of all the equine families were here at this Columbian show in such numbers as were never before witnessed. The opportunities for studying and comparing the different breeds here have never been equaled, and the exhibit was a great object lesson or school of instruction to students in this department of the Exposition.

Will T. Potts, of the firm of J. H. Potts & Son, of Jacksonville, Ill., spoke in enthusiastic terms of the cattle exhibit. He was confident that it far surpassed everything of the kind that has gone before. The cattle exhibit was opened on the 22d of August. The arena was divided, and horses and cattle were shown simultaneously, and the judging was done at the same time. The exhibits in the pavilion opened at nine o'clock in the morning and continued till evening. Of beef cattle there were more shorthorns than any other breeds shown. Among the large exhibitors of this strain were J. H. Potts & Son, Jacksonville, Ill.; Colonel Moberly, Kentucky; Robbins & Son, Indiana; Mr. Fisher, Illinois; H. F. Brown, Minnesota; L. W. Brown & Son, and Mr. Varner, of Illinois. There were fine displays of Jersey milch cows, and herds of Herefords, Polled Angus, etc. In a word, Mr. Potts and others declared it was the greatest cattle exhibit ever seen in the United States or Canada. Colonel Charles F. Mills, who was in charge of the live stock department, was a very busy man. He was constantly surrounded by farmers and stock-raisers seeking information on all conceivable topics, from exhibitors, passes to the price of baled hay. But the colonel was equal to the occasion, and took care of everyone in the most affable manner. Many people from the agricultural districts were in attendance the last two weeks of August on account of the live stock exhibit.

On the 20th of September the exhibit of sheep and swine was opened, and no greater has ever been seen in any country. The finest breeds of French and Spanish merinoes from various parts of America were to be seen, and also extraordinary specimens of well-bred hogs. To farmers in particular, and many others, all these live-stock exhibits have been highly entertaining and instructive.

WORLD'S CONGRESS AUXILIARY

THE great Exposition brought out some features that, while none of them took place within the grounds, were more or less connected with the Fair—we mean the Congresses. The women led off at the Art Institute in June, and eminent ladies from all over the world spoke on such subjects as women in journalism, typewriting, cashiers, etc., three times a day for two weeks. Many papers were read which showed that much sedentary and some other work performed by men could be as well done by women, and the gist of claims was that the latter should be paid quite as well or nearly as well as men. It was shown that women, as a general thing, were as faithful, more regu ar, and, of course, a great deal more temperate, than men. All this was carried out in a spirit of cleverness, goodness and skill, as well as of moderation, charity and justice. The speakers manifested no ill-will or exclusiveness, but their remarks and arguments were characterized by good sense and firmness throughout.

The Congress of Peace occupied a week at Washington Hall, ending on Sunday, August 21. Probably the best speech made was the closing one, by Rev. Dr. Moxom, of Boston, himself an old soldier. The speaker at the outset called attention to the fact that the nations of the earth are to-day armed to the teeth; that in Europe, owing to the system of conscription, almost every man is a soldier, and that never before was the machinery for destroying life so perfect as it is to-day. This he said looked as if the ideal state of national and international peace were a long way off. Yet never was the outlook for peace so hopeful as it was to-day. The very perfection of the implements of war was in itself one of the greatest arguments in behalf of peace. He referred to the recent attitude of England and America toward arbitration as a hopeful sign of the times, and said the recent debate in the British House of Commons on the question of international arbitration showed the recent development of the peace spirit perhaps better than anything else. So pronounced was this peace sentiment that not a single vote was recorded against the motion of Mr. Cremar in favor of arbitration. Even the prestige of an emperor was hardly sufficient to get through an army bill in Germany. Dr. Moxom then went on to deal with some of the objections raised against the peace crusade. The first was that it is human nature to perpetuate war. The lust of power will predominate in the end. In reply, he said, such a statement ignored the moral progress of the species. Strong as selfishness might be it was weaker than love. "What is the gain of one nation is the gain of all nations," said Dr. Moxom. "Men are bound together by commerce, by social and religious ties, by friendship, and by love. The higher qualities of human nature are bound to rule."

Dr. Moxom went on to speak on the social and moral aspects of war. He pointed out the economical waste of life and treasure that follows in its train, and quoted that inimitable piece of sarcasm from Carlyle, where, in "Sartor Resartos," the sage of Chelsea depicts the training and feeding of thirty strapping young men in the town of Dumbdrudge, and in due time they were accoutred as soldiers and shipped off to the south of Spain, where, as fate would have it, they met over thirty similar men from a Dumbdrudge in France and straightway the two squads commenced to blow the souls out of each other, and the end of it was that instead of sixty fine soldiers being left there was nothing left but sixty carcasses.

Dr. Julius E. Grammar, of Baltimore, also gave an eloquent address. He said the mission of Christ in the world was peace. The age of war, he said, had passed, and the time had come to put the true spirit of Christianity into practice. War, he said, belonged to the savage, while peace was an attribute of civilized and Christian nations.

The colored people had a day or two at the Art Institute, with Fred Douglass at their head. The origin of the African and of African slavery was touched upon in a superior way, and also the emancipation of the black slave in our own and other countries.

The Congress of Science and Philosophy convened in the Art Institute Monday morning at 10 o'clock, August 21, and was divided into fifteen sections, embracing such subjects as astronomy, chemistry, pharmacy, electricity, meteorology, geology, philosophy, physical science, and anthropology, zoology, social and economic science, statistics, revenue, taxation, profit sharing; and in the knotty problems sought to be unraveled some of the acutest thinkers of the day took part. The department of electricity, whose chairman, Dr. Elisha Gray, had prepared an excellent program, was represented by such giants as Thomas A. Edison and Dr. von Helmholtz, of Germany. This section was composed of two chambers, one of them representing the delegates sent by the different countries of the world, the other divided into three sub-sections, which discussed respectively pure science, science and practice, and practice.

In the other congresses in this department the best talent of both hemispheres participated. Eminent scientists from England, Germany, Italy, Sweden, Russia, France, Scotland, and nearly every State in America had been secured, and they either were present in person or their papers were read by others.

One of the pleasantest of all these congresses, although the mercury reached 93 at noon, was that of the geographers, at which Paul du Chaillu, the distinguished traveler and writer, was present.

Ensign Roger Welles, Jr., U. S. N., read a paper on the Orinoco River, and Dr. Emil Hassler, Paraguayan Commissioner, told some geographical facts about his country.

Other geographers talked about Columbus and other folks who are supposed to have discovered America before Columbus got ready to start. Capt. John Bourke, U. S. A., who had helped guide the visitors through the model of La Rabida

in the morning, told them all about the real La Rabida and made many merry little jests which much relieved the heat of recital hall. Captain Bourke related also much of the early history of Spain, told the congress that the word infantry took its origin from the first force of Spanish foot soldiers having been commanded by the Spanish infanta, whereat all the women looked interested and thought of Eulalia.

Paul du Chaillu then came forward—the man who has made personal studies of geography all the way from Norway to central Africa, a short, swart, little man with a bald head and a neat white vest. He looked like a reduced copy of Bismarck. He said he would not talk about Africa but would tell of his studies of the early Vikings. This in a funny foreign accent and in a way that made everybody feel that du Chaillu must be a pretty nice man. He told of his work in the islands of the Baltic, where are the graves of 250,000 Vikings, and said that from the examination of these mounds it was evident that the Vikings had been making voyages before the Christian era and that they had settled in England before the time of Christ. Then he recited in Latin the description of the Vikings' ships written by Tacitus.

All of this seemed to please Capt. Magnus Andersen, the last of the Vikings, who sat in the back of the hall, but Capt. Victor Maria Concas, who sat in the full uniform of a Spanish naval officer on the rostrum, did not seem to be so sure about these Vikings.

After which Mr. du Chaillu returned to talk of explorations. "Two hundred years ago," he said, "nobody cared who discovered America. That is a new fad. The Norsemen were ahead of their time and their story is lost now. It is only twenty-five years since I came back from Africa with my story of the great forests, the cannibals and the dwarfs. Everybody said: 'Oh, what a liar Paul is.' I was ahead of my time, but they believe it now. I have to explore this Fair, this fairy land, yet. I just discovered it the other day. I think it will be my most glorious exploration."

And then Paul du Chaillu grasped his hat and departed. Following his paper Captain Concas told of the caravels of Columbus, as well as the reproductions of them which he commands. He exhibited many relics which he had brought from his three little ships.

The Parliament of Religion commenced early in September, and lasted three weeks, and was attended by eminent Catholics, Lutherans, Congregationalists, Unitarians, Presbyterians, Hebrews. and Hindoos. Preachers there were who spared neither Judaism, Buddhism or Christianity. There were those who believed in heaven, hell, and resurrection, and a number who denied all three. There were some murmurings at times, and much squirming, too. There were startling contrasts, each day of the Parliament, and, on the whole, it may be stated that, of all the Congresses, the Parliament of Religions brought out by far the greatest resources and grandest speakers of all. Nothing like it has ever been known before and it may be safe to say that many years will roll by before there will be a repetition of this extraordinary "Parliament."

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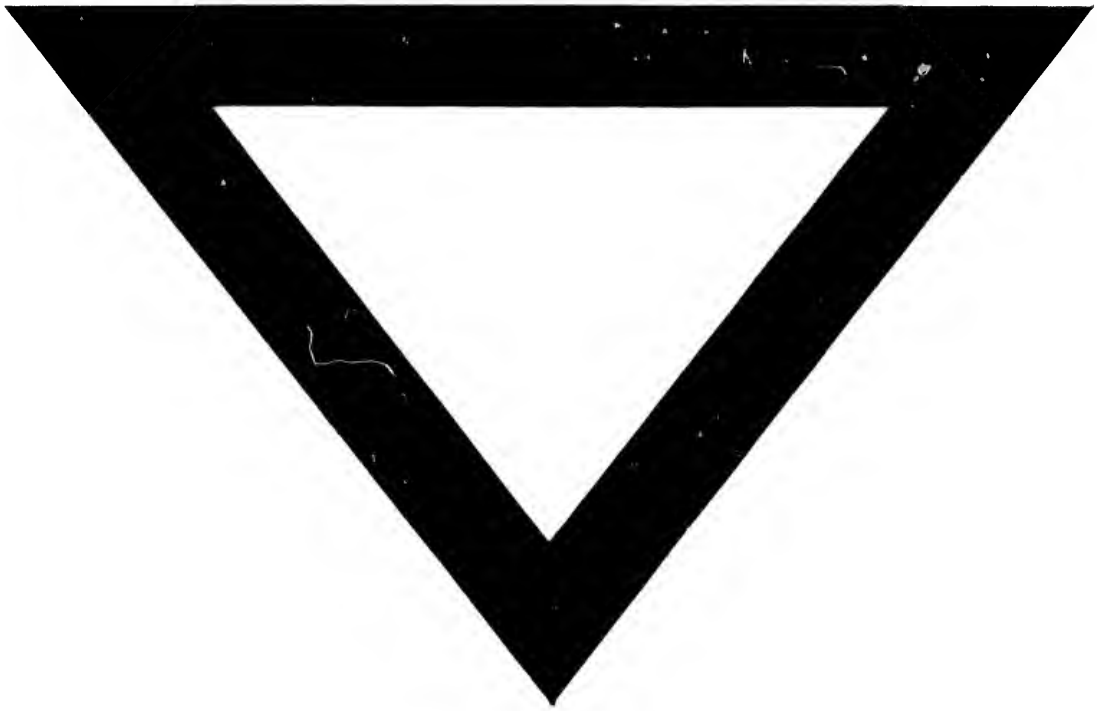
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